

# Transportation Indicators

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# Introduction

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This report is intended to provide timely, easily accessible information for transportation decisionmakers. It was developed by the Bureau of Transportation Statistics (BTS) of the U.S. Department of Transportation (DOT). It is an outgrowth of the accountability working group of DOT's Senior Leadership Team.

Each indicator is placed under a heading corresponding to one of the five strategic goals of the DOT — safety, mobility, economic growth, environment, and national security. Some indicators are related to more than one strategic goal.

The indicators fall under two broad categories: those that provide context about the economy and society in which transportation functions, and those that convey information about an aspect of transportation. To the extent possible, these latter indicators are transportation-wide in scope; however, some apply to only part of the transportation system. Reference tables at the beginning of the document provide key statistics about U.S. social and economic characteristics, and about the extent of the transportation system.

For indicators that are highly seasonal, the current value of that indicator is compared to the same time period in the previous year (e.g., January 2000 compared to January 1999). Otherwise, the tables show a comparison of the current value to the immediately prior period of time (e.g., July 2000 compared to June 2000).

BTS would like feedback about this report. Please send comments to:

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# Highlights – November 2000

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✂ Hazardous materials incidents were lower by over 25 percent in June 2000 than in June 1999 , with substantial reductions in air, highway, and rail.	10-11
✂ Air passenger available seat miles reached a new record high in August, as revenue passenger-miles continued a long term trend upward.	15
✂ Domestic air freight ton-miles in August 2000 were down nearly 15 percent from August 1999.	16
✂ Domestic air revenue passenger load factor was 76 percent in August 2000, off from June and July, but the highest value for August in at least five years.	17
✂ Waterborne import and export trade surpassed 100 million metric tons in July 2000 - up 6 percent over July 1999.	26
✂ Highway and street construction unit costs in October were 7 percent higher than a year ago, while both costs and overall public spending on highways and streets was down from the Spring.	39
✂ Second-quarter profits for for-hire transportation industries jumped nearly 25 percent (on a 4 percent rise in income), after declining more than 9 percent in the first quarter. Sector profits outperformed those of the economy as a whole for the first time in more than a decade.	44
✂ Sales of medium/heavy trucks in October 2000 were nearly 25 percent lower than a year ago.	52
✂ Jet fuel prices reported by major carriers to BTS for September 2000 were up 61 percent for scheduled services, and 54 percent for non-scheduled services compared to September 1999	57
✂ Transportation energy use rose less than 1 percent from July 1999 to July 2000. Transportation energy use declined over 5 percent per dollar of GDP in the second quarter of 2000 compared to the second quarter of 1999.	63
✂ Transportation sector carbon dioxide emissions in 1999 were up nearly 3 percent from 1998.	64

The validity of these statements has not been statistically tested. *Transportation Indicators* is still under development. BTS is in the process of investigating the reliability of the indicator estimates with a view toward providing more rigorous analyses in future issues.



## Summary of Social and Economic Characteristics of the United States: 1980-2000

	1980	1985	1990	1995	1996	1997	1998	1999	2000
Total U.S. resident population (thousands) <sup>a</sup>	227,225	237,924	248,791	262,803	265,229	267,784	270,248	272,691	275,617
Age (thousands) <sup>a</sup>									
Under 18	63,754	62,623	63,949	68,555	69,109	69,603	69,903	70,199	70,455
18-24 years	30,022	28,902	26,961	25,112	24,843	24,980	25,476	26,011	26,645
25-34	37,082	41,696	43,174	40,730	40,246	39,559	38,743	37,936	37,280
35-44	25,634	31,691	37,444	42,555	43,365	44,014	44,498	44,813	44,844
45-54	22,800	22,460	25,062	31,100	32,358	33,625	34,575	35,804	37,412
55-64	21,703	22,135	21,116	21,132	21,353	21,813	22,666	23,389	24,101
65 and over	25,550	28,415	31,083	33,619	33,957	34,185	34,385	34,540	34,880
Sex (thousands) <sup>b</sup>									
Male	110,053	116,160	121,284	128,294	129,504	130,783	132,030	133,277	134,756
Female	116,493	122,576	127,507	134,510	135,724	137,001	138,212	139,414	140,860
Metropolitan areas (population in millions)									
Large (over 1 million)	119	U	139	147	149	151	153	156	U
Medium (250,000-999,999)	41	U	41	44	44	43	43	43	U
Small (less than 250,000)	17	U	18	19	19	20	20	20	U
Rural v. urban (thousands)									
Rural	59,495	U	61,656	U	U	U	U	U	U
Urban	167,051	U	187,053	U	U	U	U	U	U
Regions (population in millions) <sup>c</sup>									
Northeast	49.1	49.9	50.8	51.4	51.6	51.6	51.7	51.8	U
South	75.4	81.4	85.5	91.8	93.1	94.2	95.3	96.5	U
Midwest	58.9	58.8	59.7	61.8	62.1	62.5	63.0	63.2	U
West	43.2	47.8	52.8	57.7	58.5	59.4	60.3	61.2	U
Immigrants admitted	530,639	570,009	1,536,483	720,461	915,900	798,378	660,447	U	U
Total area (square miles)	3,618,770	U	3,717,796	U	U	U	U	U	U

-Table continued on next page-



## Summary of Social and Economic Characteristics of the United States: 1980-2000

	1980	1985	1990	1995	1996	1997	1998	1999	2000
Gross Domestic Product (GDP) (Chained \$ 1996 billions) <sup>d</sup>	4,900.90	5,717.10	6,707.90	7,543.80	7,813.20	8,144.80	8,495.70	8,848.20	U
Total civilian labor force (thousands)	106,940	115,461	125,840	132,304	133,943	136,297	137,673	139,368	U
Participation rate of men	77.40%	76.30%	76.40%	75.00%	74.90%	75.00%	74.90%	74.70%	U
Participation rate of women	51.50%	54.50%	57.50%	58.90%	59.30%	59.80%	59.80%	60.00%	U
Unemployment rate	7.10%	7.20%	5.60%	5.60%	5.40%	4.90%	4.50%	4.20%	U
Men	6.90%	7.00%	5.70%	5.60%	5.40%	4.90%	4.40%	4.10%	U
Women	7.40%	7.40%	5.50%	5.60%	5.40%	5.00%	4.60%	4.30%	U
Number of households (thousands)	80,776	86,789	93,347	98,990	99,627	101,018	102,528	U	U
Average size of households	2.76	2.69	2.63	2.65	2.65	2.64	2.62	U	U
Median household income (Chained \$ 1996)	33,722	34,439	35,945	35,082	35,492	36,175	37,430	U	U
Families below poverty level (thousands)	6,217	7,223	7,098	7,532	7,708	7,324	7,186	U	U
Average household expenditures (Chained \$ 1996)	U	34,253	34,070	33,217	33,797	34,038	34,205	U	U

KEY: U= Unavailable

<sup>a</sup> Estimates as of July 1 except 1980 and 1990, which are as of April 1, and 2000, which is as of September 1.

<sup>b</sup> 1995 through 2000 data are estimates.

<sup>c</sup> As of July 1 for all years except 1980 and 1990.

<sup>d</sup> For definition of chained dollars, see page 29.

SOURCES: 1980-1998 data: Multiple sources as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1999*, Table A, p. xix.

1999 Data: Population: U.S. Department of Commerce, Bureau of the Census, available at: <http://www.census.gov>.

Immigration: U.S. Department of Justice, Immigration and Naturalization Services, *Annual Report: Legal Immigration FY 1998*, available at: <http://www.ins.usdoj.gov/graphics/aboutins/statistics/index.htm>.

GDP, Avg. Household Expenditure, Median Household Income: U.S. Department of Commerce, Bureau of Economic Analysis.

Employment (1980-1999): U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/cpsatabs.htm>.

Average Size of Households, Families below poverty level: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States*, 1999.



## Transportation System Extent

Mode	Components (1999 data unless otherwise noted)
Highway (1998)	<b>Public Roads</b> 46,334 miles of Interstate highway; 113,759 miles of other National Highway System roads 3,760,876 miles of other roads
Air	<b>Public-use airports</b> 5,354 airports <b>Airports serving large certificated carriers</b> 29 large hubs <sup>a</sup> (69 airports), 459 million enplaned passengers 31 medium hubs (48 airports), 96 million enplaned passengers 56 small hubs (73 airports), 39 million enplaned passengers 577 nonhubs (604 airports), 17 million enplaned passengers
Rail	<b>Miles of road operated</b> 120,986 miles by Class 1 freight railroads <sup>b</sup> 21,250 miles by regional freight railroads 28,422 miles by local freight railroads 22,741 miles by Amtrak (passenger), of which 750 miles are Amtrak owned
Urban transit (1998)	<b>Directional route-miles serviced</b> Bus: 157823; Trolley bus: 424; Commuter rail: 5,172 Heavy rail: 1,527; Light rail: 676 <b>Stations</b> Commuter rail: 972; Heavy rail: 987; Light rail: 555
Water (1998)	26,000 miles of navigable waterways 276 locks; Ferry routes: 48 <b>Commercial Facilities</b> Great Lakes: 619 deep; 144 shallow Inland: 2,376 shallow Coastal: 4,057 deep; 2,131 shallow
Pipeline (1998)	<b>Oil</b> Crude lines: 87,663 miles of pipe; Product lines: 90,985 miles of pipe <b>Gas</b> Transmission: 253,900 miles of pipe; Distribution: 980,800 miles of pipe

<sup>a</sup>A hub is defined as a geographic area based on the percentage of total enplaned passengers in that area. For example, a large hub serves 1 percent or more of all enplaned revenue passengers in U.S. certificated route carriers operating in U.S. areas. This definition should not be confused with airline usage of the term hub to describe "hub and spoke" route structures.

<sup>b</sup> Includes 574 miles of road operated by U.S. Class 1 freight railroads in Canada.

SOURCES: U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics (BTS), *Transportation Statistics Annual Report 2000* (Washington DC: in press), table 1-1; USDOT, BTS, *National Transportation Statistics 2000* (Washington DC: in press), various tables; Association of American Railroads, *Railroad Facts 2000*, (Washington DC:2000); USDOT, Federal Highway Administration, *Highway Statistics 1998* (Washington DC: 1999); National Ferry Database, as of 10/10/00; and U.S. Army Corps of Engineers, Navigation Data Center, Geographic Distribution of U.S. Waterway Facilities, available at: <http://www.wssc.usace.army.mil/ndc/fcgeodis.htm>.



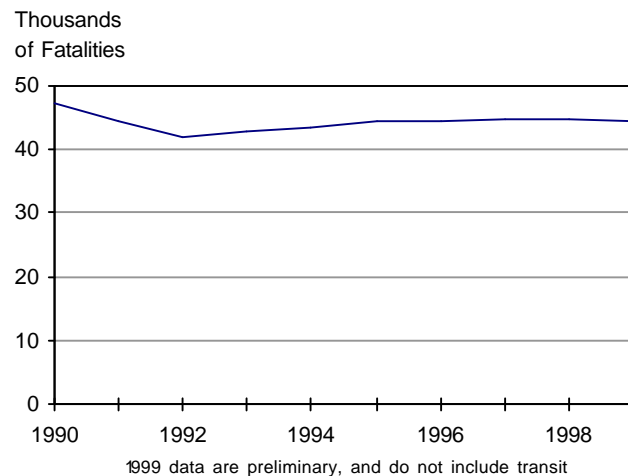
# Safety

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Total Transportation Fatalities  
(annual data, all modes)



## Transportation fatalities: all modes

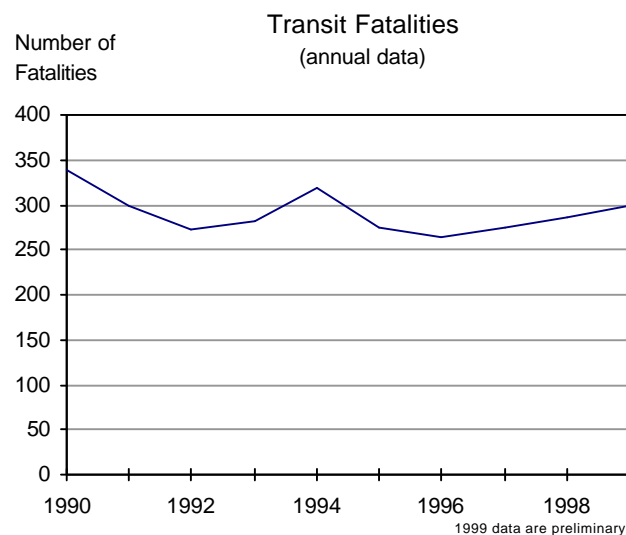
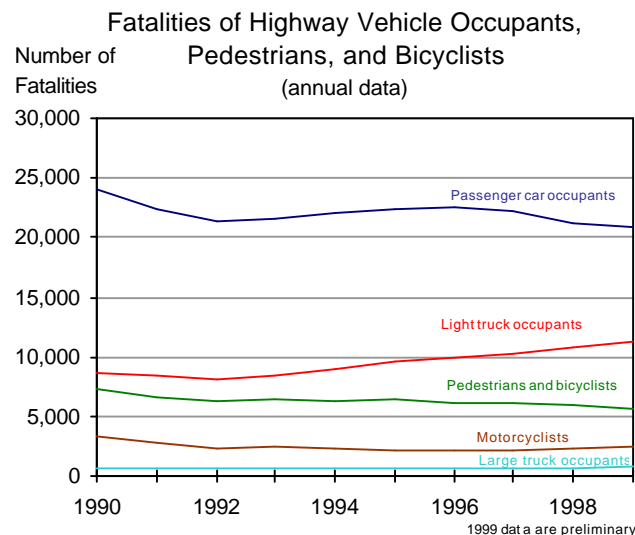
Fatalities represent the most severe safety consequence for the transportation system. In 1999, there were 44,339 transportation-related fatalities, compared to 47,348 in 1990.

See U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1999*, pp. 273-280, for detailed discussion of modal fatality data.

Transportation Fatalities	1998	1999
Total	44,849	44,339
Percent change from previous year	0.85	-1.14

SOURCES: Data compiled from various government agencies as cited in the U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics, *National Transportation Statistics 1999*, table 3-1, available at: <http://www.bts.gov/ntda/nts/nts.html>, and the U.S. Department of Transportation, *1999 Performance Report/2001 Performance Plan*, available at: [http://www.dot.gov/ost/ost\\_temp/](http://www.dot.gov/ost/ost_temp/). Preliminary highway data for 1999 are from the USDOT National Highway Traffic Safety Administration.





## Motor vehicle occupants, pedestrian, and bicyclist fatalities

Highway crashes cause 94 percent of all transportation-related fatalities and are the leading cause of death of people ages 5 through 29 (DOT Performance Plan FY 2001). The number of light trucks has increased greatly since 1990, affecting light truck occupant fatality numbers.

Transit includes transit bus, light and heavy transit rail, commuter rail, para-transit, and other transit categories. Transit fatalities are transit-caused deaths confirmed within 30 days of a transit incident.

NOTES: Large trucks - trucks over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors.

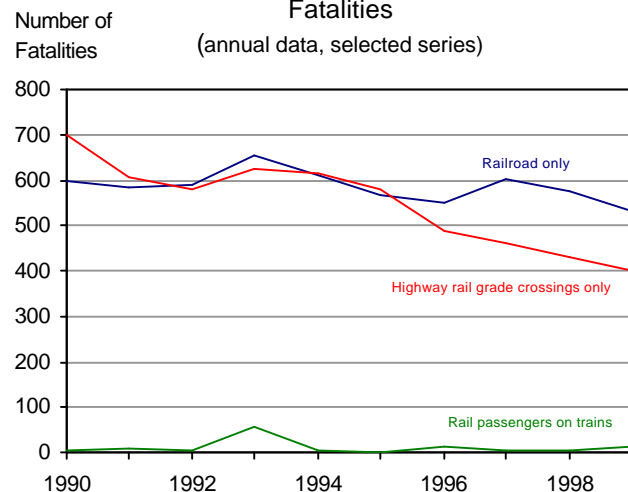
Light trucks - trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.

See U.S. Department of Transportation, Bureau of Transportation Statistics, pp. 273-280, *National Transportation Statistics 1999* for detailed discussion of modal fatality data.

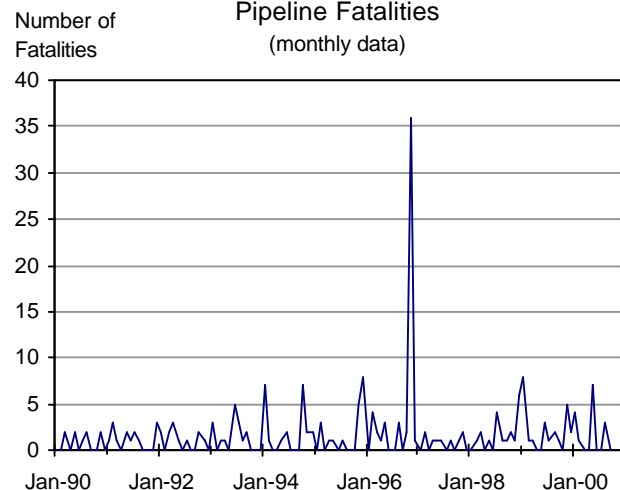
SOURCES: Data compiled from various government agencies as cited in the U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics, *National Transportation Statistics 1999*, table 3-1, available at: <http://www.bts.gov/ntda/nts/nts.html>, and the U.S. Department of Transportation, *1999 Performance Report/ 2001 Performance Plan*, available at: [http://www.dot.gov/ost/ost\\_temp/](http://www.dot.gov/ost/ost_temp/). Preliminary highway data for 1999 are from the USDOT National Highway Traffic Safety Administration.

Fatalities by Type	1998	1999
Highway	41,501	41,611
Percent change from previous year	-1.22	0.27
Passenger car occupants	21,194	20,818
Percent change from previous year	-4.53	-1.77
Light truck occupants	10,705	11,243
Percent change from previous year	4.45	5.03
Pedestrians	5,228	4,906
Percent change from previous year	-1.75	-6.16
Motorcyclists	2,284	2,472
Percent change from previous year	7.94	8.23
Large truck occupants	742	758
Percent change from previous year	2.63	2.16
Bicyclists	760	750
Percent change from previous year	-7.77	-1.32
Transit	286	299
Percent change from previous year	4.00	4.55

**Railroad and Highway-Rail Crossing Fatalities**



**Gas and Hazardous Liquid Pipeline Fatalities**



Note: Spike in graph represents leak and explosion of gas line in residential and shopping district in San Juan Puerto Rico, 11/21/96.

## Railroad and grade crossing fatalities

In most years, the overwhelming majority of people killed in train accidents are outside the train. Many are occupants of highway vehicles, pedestrians, or bystanders at highway-rail grade crossings. Railroad workers and others on railroad property (including trespassers) account for most of the other rail-related fatalities.

NOTE: "Rail passengers on trains" includes fatalities in both highway-rail grade crossings and non-grade crossing accidents. "Railroad only total" includes passengers on trains killed in non-grade crossing accidents. It also includes railroad workers (including contractors), other non-trespassers, and trespassers killed in train accidents, whether on or off the train, except at grade crossings. Data include both freight and passenger railroad operations.

## Pipeline fatalities

Pipeline failures are low probability events that can result in fatalities, injuries, and property damage. Over time, gas pipeline fatalities tend to outnumber those involving hazardous liquid (e.g., petroleum) pipelines. Outside force damage (such as damage to a pipeline during excavation for construction) is the leading cause of pipeline failures, followed by corrosion (DOT Performance Plan FY 2001).

Fatalities by Mode	1998	1999
Railroad only total	577	530
Percent change from previous year	-4.15	-8.15
Grade crossing total	431	401
Percent change from previous year	-6.51	-6.96
Passengers on trains	4	14
Percent change from previous year	-33.33	250.00

SOURCES: Data compiled from various government agencies as cited in the U.S. Department of Transportation (USDOT), Bureau of Transportation Statistics, *National Transportation Statistics 1999*, table 3-1, available at: <http://www.bts.gov/ntda/nts/nts.html>.

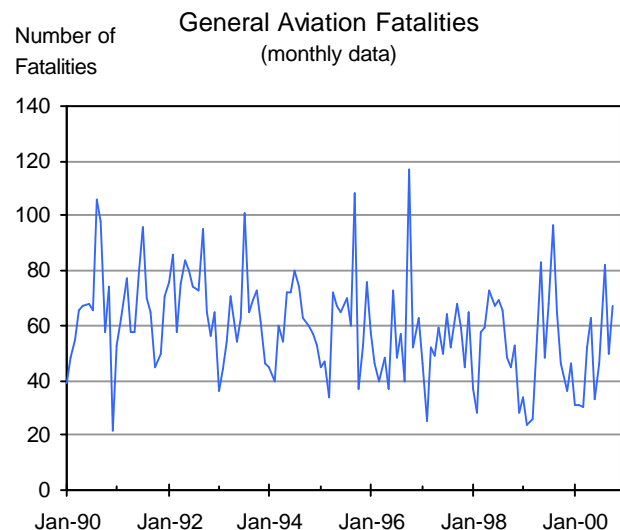
Gas and Hazardous Liquid Pipelines	Sep-99	Sep-00
Total fatalities	1	0
Percent change from same month previous year	0	-100

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

All 2000 data is preliminary, and subject to change as incidents are reported.

SOURCE: U.S. Department of Transportation, Office of Pipeline Safety, Research and Special Programs Administration, Online Library Accident and Incident Data as of November 15, 2000, available at <http://ops.dot.gov/IA98.htm>.





## General aviation fatalities

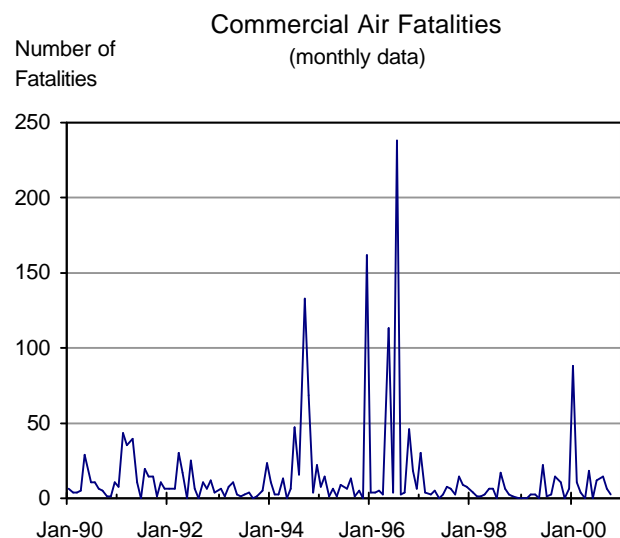
General aviation fatalities comprise the majority of aviation fatalities in most years.

NOTE: General Aviation – Movements of aircraft and helicopters belonging to individuals, companies not primarily in the aviation business, and flying clubs. Services provided by general aviation aircraft include firefighting, law enforcement, news coverage, and corporate in-house transportation.

General Aviation	Oct-99	Oct-00
Fatalities	46	67
Percent change from same month previous year	2.22	45.65

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: National Transportation Safety Board, Office of Aviation Safety, available at: <http://www.nts.gov/aviation>.



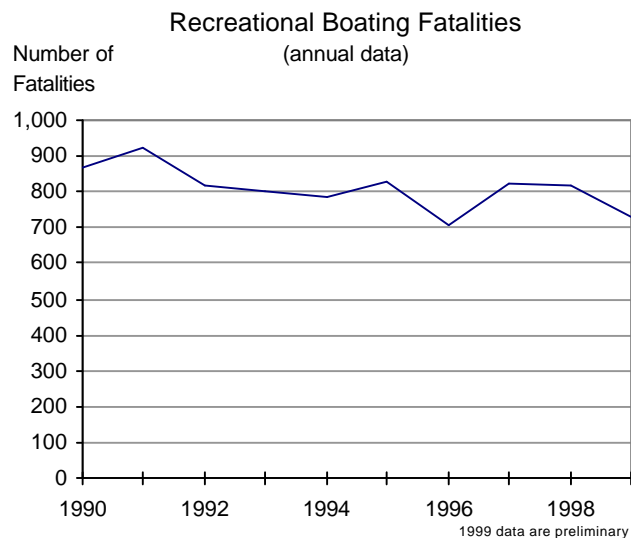
## Commercial aviation fatalities

Commercial air fatalities include those arising from accidents of planes providing passenger and/or cargo services to the public, including large air carriers, commuter air, and air taxi. Commercial air includes scheduled and nonscheduled service by air carriers operating under 14 Code of Federal Regulations (CFR) 121 and 14 CFR 135.

Commercial Air	Oct-99	Oct-00
Fatalities	11	2
Percent change from same month previous year	450.00	-81.82

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: National Transportation Safety Board, Office of Aviation Safety, available at: <http://www.nts.gov/aviation>.



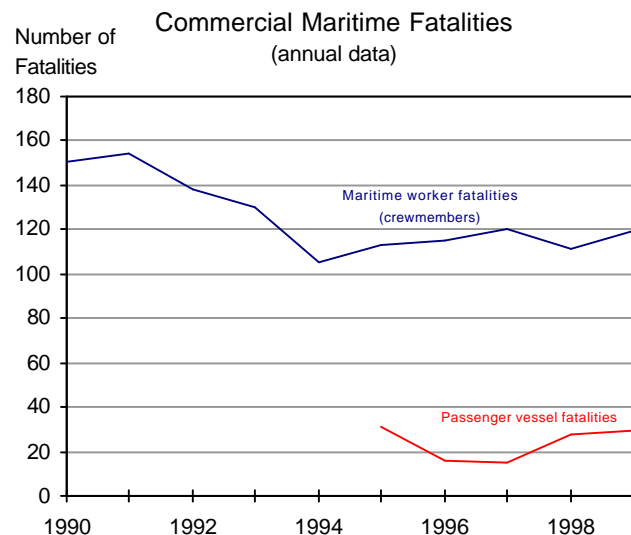
## Recreational boating

Most fatalities, injuries, and accidents in water transportation involve recreational boating. Most recreational boating is discretionary, and the purpose of trips generally is to spend time on the water, not to get from one point to another. The main cause of recreational boating accidents is human error. In 1998, there were about 12.6 million numbered recreational boats in the United States.

Recreational boats include motorboats, personal watercraft (e.g., jet skies), sail boats, houseboats, rowboats, canoes, kayaks, and some other kinds of watercraft

Recreational Boating	1998	1999
Fatalities	815	729
Percent change from previous year	-0.73	-10.55

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Boating Safety, *Boating Statistics* (Washington, DC: Annual issues).



## Fatalities in commercial maritime transportation

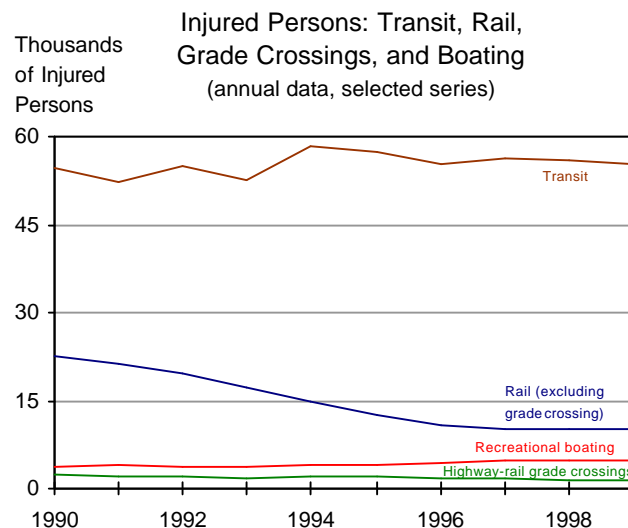
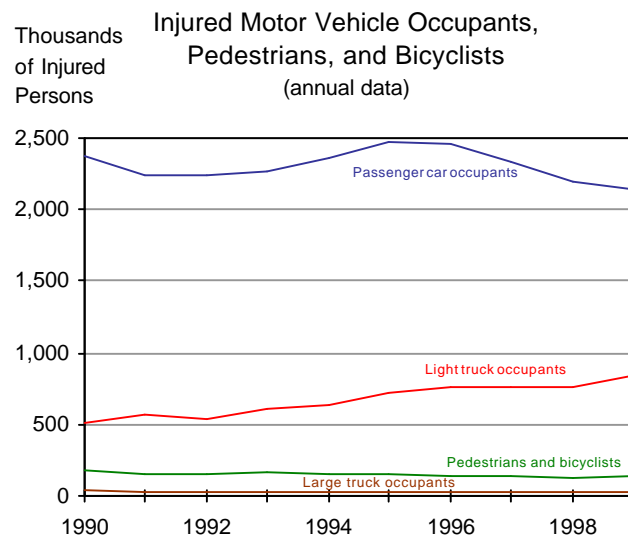
Maritime worker fatalities include crewmembers in the maritime industry aboard U. S. vessels/platforms. The data do not include fatalities on recreational vessels or foreign vessels, or fatalities arising from intentional and natural causes.

Passenger vessel fatalities include casualties aboard cruise ships, gambling ships, charter fishing boats, sightseeing boats, and passenger ferries.

Over 90 million people are carried aboard passenger vessels each year.

Maritime Fatalities	1998	1999
Maritime worker fatalities	111	119
Percent change from previous year	-7.50	6.72
Passenger vessel fatalities	28	29
Percent change from previous year	86.67	3.57

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Plans, Policy and Evaluation, Personal Communication, and U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1999*, table 3-1, available at: <http://www.bts.gov/ntda/nts/nts.html>.



## Injured persons by transportation mode

Transportation-related injuries have declined since 1995, with highway-rail at-grade crossings and commercial maritime transportation registering the greatest percentage decline. The greatest percentage decline since 1990 has been for rail. The number of light trucks has increased greatly since 1990, affecting light truck occupant injury numbers.

NOTES: National estimates of highway injuries are sampled and subject to sampling errors. Highway total in table includes categories not displayed in graph.

Large trucks - trucks over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors.

Light trucks - trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.

Highway-rail at-grade crossing injuries are also counted under highway, except train occupants. Transit injuries include those resulting from all reportable incidents, not just from accidents involving transit vehicles.

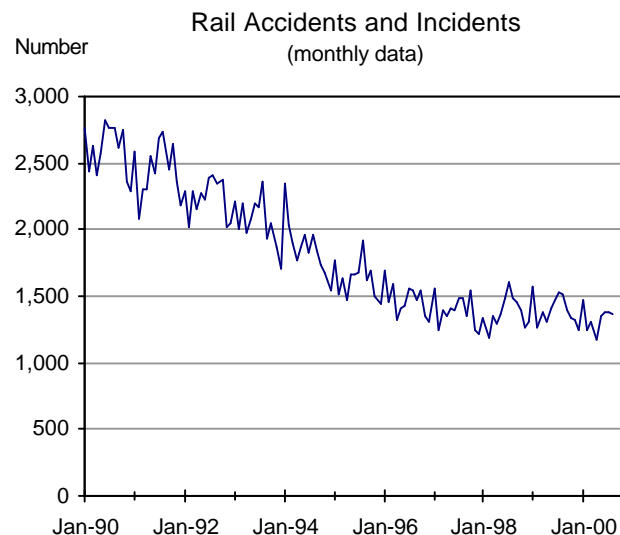
See U.S. Department of Transportation, Bureau of Transportation Statistics, pp. 273-280, *National Transportation Statistics 1999* for detailed discussion of modal injury data.

SOURCE: Data compiled from various government agencies, as cited in U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1999*, table 3-2, available at: <http://www.bts.gov/ntda/nts/nts.html>.

Injured Persons by Mode	1998	1999
Highway	3,192,000	3,236,000
Percent change from previous year	-4.66	1.38
Transit	55,990	55,325
Percent change from previous year	-0.25	-1.19
Railroad	10,156	10,304
Percent change from previous year	-0.69	1.46
Recreational Boating*	4,555	4,613
Percent change from previous year	2.54	1.27
Highway-rail Grade Crossing	1,303	1,396
Percent change from previous year	-15.39	7.14
General Aviation	330	325
Percent change from previous year	-9.59	-1.52
Commercial Maritime Transportation*	109	83
Percent change from previous year	-15.50	-23.85
Pipeline	75	107
Percent change from previous year	-2.60	42.67

\* Data are for 1997 and 1998.





## Rail accidents and incidents

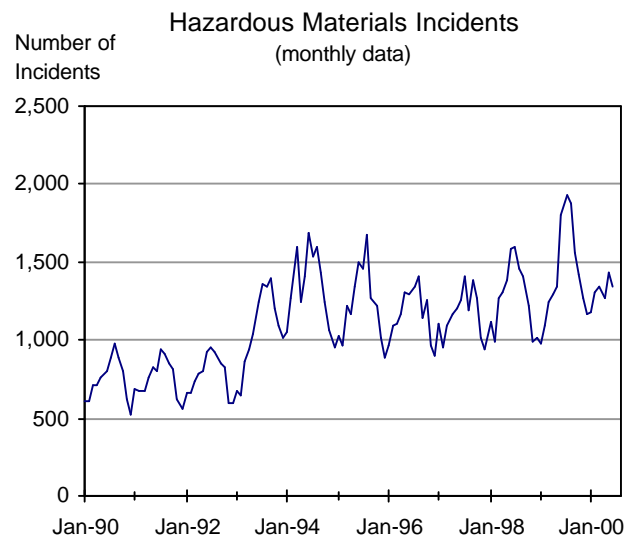
Rail accidents and incidents include any collision between railroad on-track equipment and other vehicles or pedestrians at grade crossings; any event involving operation of railroad on-track equipment that results in damages to railroad property; and any event arising from railroad operations that results in death or injury, or, in the case of railroad employees, an occupational illness.

NOTE: Accidents and incidents differ by the extent, in dollars, of the property damage resulting from the event.

Railroad	Aug-99	Aug-00
Total Accidents and Incidents	1,522	1,370
Percent change from same month previous year	2.01	-9.99

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Federal Railroad Administration, Office of Safety, available at: <http://safetydata.fra.dot.gov/officeofsafety/>.



## Hazardous materials incidents

Flammable liquids (e.g., gasoline) comprise the most tonnage and ton-miles of hazardous material shipments. Gasoline usage peaks in the summer and accounts for the seasonality in hazardous materials incidents.

NOTES: Incident reporting requirements were extended to intrastate motor carriers on October 1, 1998, which may partly explain the subsequent increased volume of reports. Beginning in April 1993, there was sharp improvement in reporting of incidents by small package carriers.

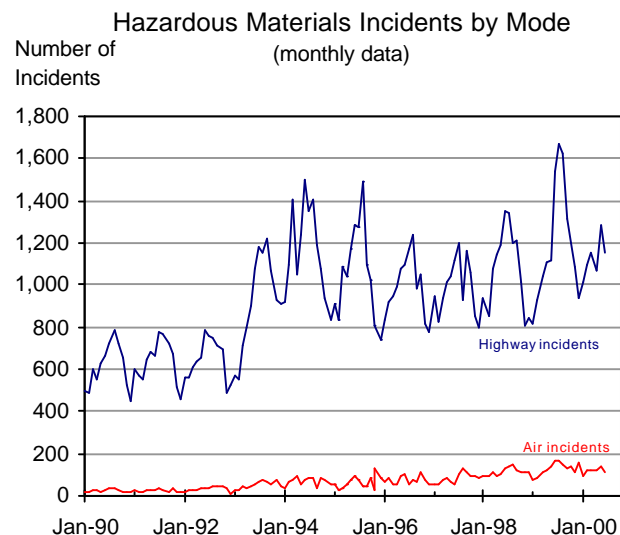
A reported incident is a report of any unintentional release of hazardous material while in transportation (including loading, unloading, and temporary storage). It excludes pipeline and bulk shipments by water, which are reported separately.

Hazardous Materials Incidents	Jun-99	Jun-00
Total	1,804	1,341
Percent change from same month previous year	13.96	-25.67

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U. S. Department of Transportation, Research and Special Programs, Office of Hazardous Materials, Planning and Analysis, Hazardous Materials Information System data obtained through personal communication.



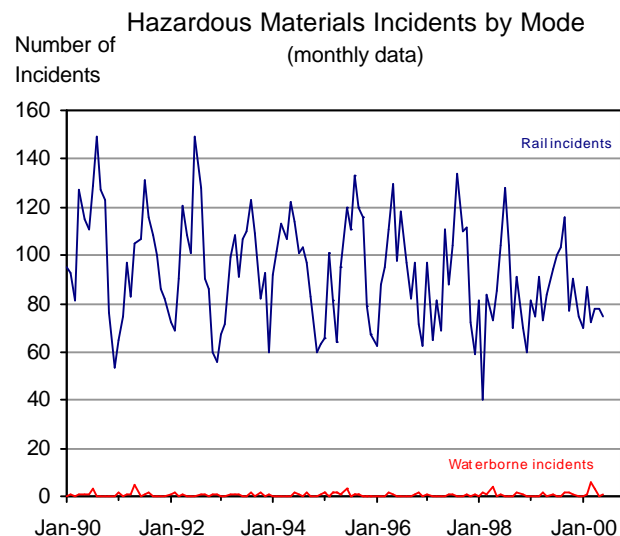


## Modal breakout of hazardous materials incidents

Most reported releases of hazardous materials occur on the highways.

NOTES: Incident reporting requirements were extended to intrastate motor carriers on October 1, 1998, which may partly explain the subsequent increased volume of reports. Beginning in April 1993, there was sharp improvement in reporting of incidents by small package carriers.

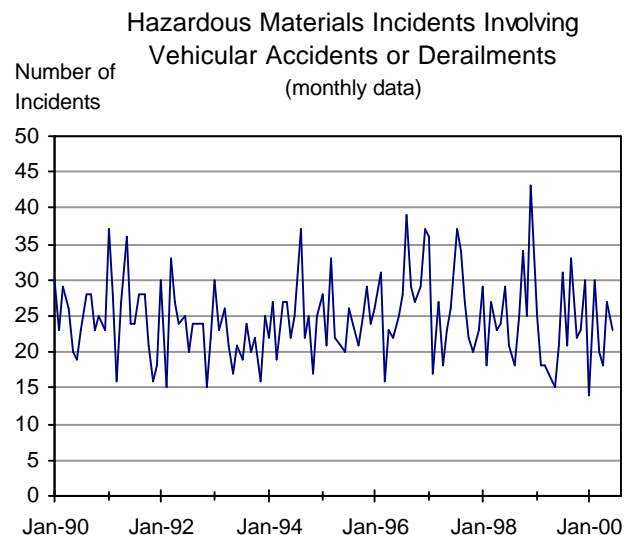
A reported incident is a report of any unintentional release of hazardous material while in transportation (including loading, unloading, and temporary storage). It excludes pipeline and bulk shipments by water, which are reported separately.



Hazardous Materials Incidents by mode	Jun-99	Jun-00
Highway	1,541	1,150
Percent change from same month previous year	14.32	-25.37
Air	168	115
Percent change from same month previous year	29.23	-31.55
Rail	94	75
Percent change from same month previous year	-9.62	-20.21
Waterborne	1	1
Percent change from same month previous year	0.00	0.00

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U. S. Department of Transportation, Research and Special Programs, Office of Hazardous Materials, Planning and Analysis, Hazardous Materials Information System data obtained through personal communication.



## Hazmat incidents involving crashes or train derailments

Motor vehicle accidents or train derailments account for only a small portion of total number of hazardous materials incidents. However, their consequences are often the most severe.

NOTES: Reporting requirements were extended to intrastate motor carriers on October 1, 1998, which may have affected data reported after this date.

Accident/derailment is a crash involving a motor vehicle or a derailment of a train.

Hazardous Materials Incidents	Jun-99	Jun-00
Total motor vehicle crashes and train derailments	21	23
Percent change from same month previous year	-27.59	9.52

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

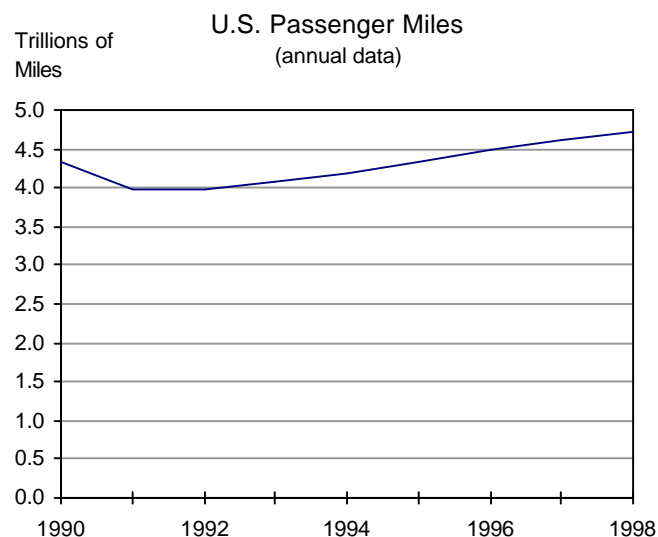
SOURCE: U. S. Department of Transportation, Research and Special Programs, Office of Hazardous Materials, Planning and Analysis, Hazardous Materials Information System data obtained through personal communication.

# Mobility

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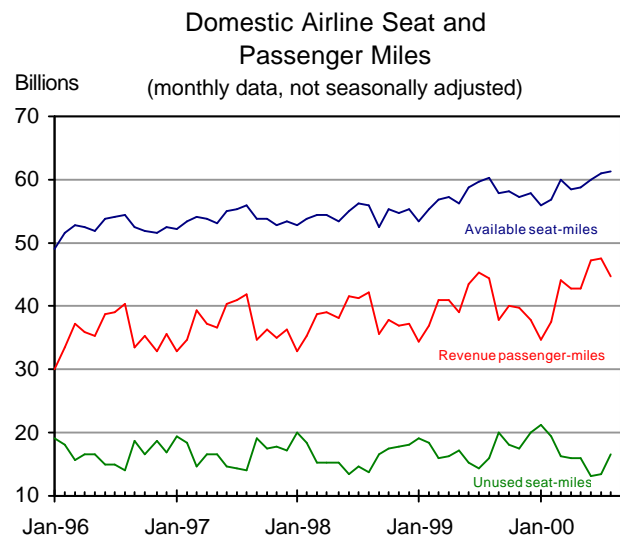
## Passenger miles

Passenger miles are a key measure of transportation system use. The highway modes account for the lion's share of passenger miles. Air passenger miles, although a distant second, have grown rapidly in recent decades.

NOTE: Includes air, highway, transit, and passenger rail. Motor bus was removed from the transit total to limit double-counting with highway. Transit includes ferry boat.

U.S. Passenger Travel	1997	1998
Total passenger miles (billions)	4,615	4,707
Percent change from previous year	3.09	2.00

SOURCE: Data compiled from various sources as cited and reported in the U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1999*, p. 46.



## Availability and use of air passenger transportation

Revenue passenger-miles are a measure of the volume of air passenger transportation. Unused seat-miles (the difference between available seat-miles and revenue passenger miles) is one measure of airline capacity utilization. Another measure is the intensity of use of the equipment.

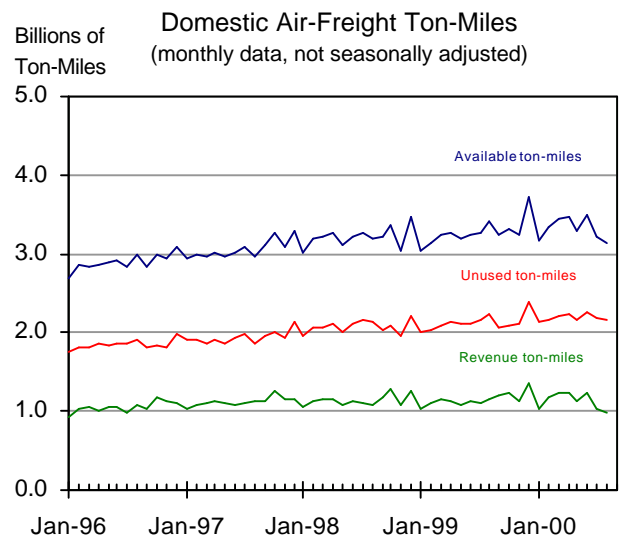
NOTES: A revenue passenger-mile is equal to one paying passenger carried one mile. Available seat-miles for an individual flight are the number of seats multiplied by the distance traveled. The data do not include international flights by U.S. domestic carriers or domestic flights by foreign carriers.

Domestic Passenger Aviation	Aug-99	Aug-00
Available seat-miles (billions)	60.38	61.29
Percent change from same month previous year	7.69	1.51
Revenue passenger-miles (billions)	44.36	44.64
Percent change from same month previous year	4.89	0.64
Unused seat-miles (billions)	16.01	16.65
Percent change from same month previous year	16.18	4.00

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality. The data have been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month).

These indicators are components of the passenger and overall aircraft load factors displayed in the indicator entitled Domestic Air Revenue Load Factors.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carrier Traffic Statistics Monthly*, September 2000.



## Availability and use of air freight transportation

Though still much smaller than air passenger transportation, air freight is an increasingly important revenue source for the air transportation industry. It includes both freight handled by dedicated air cargo handlers and air cargo shipped on combined passenger and air freight carriers (passenger luggage is not considered cargo for this purpose).

Unused ton-miles are the difference between available ton-miles and revenue ton-miles utilized. Changes in the level of spare capacity might be an indicator of the timely availability of air freight services. For example, a shipper with a sudden need for service will be more likely to obtain an appropriate flight when spare capacity is higher. Space limitations also affect the availability of air freight services.

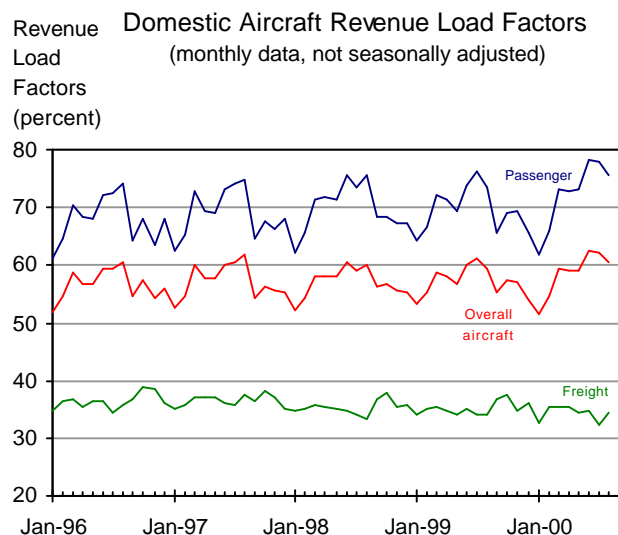
NOTES: A revenue ton-mile is equal to one ton carried one mile and measures utilization of air-freight services. The data do not include international flights by U.S. domestic carriers or domestic flights by foreign carriers.

Domestic Freight Aviation	Aug-99	Aug-00
Available ton-miles (billions)	3.41	3.14
Percent change from same month previous year	6.56	-7.79
Unused ton-miles (billions)	2.24	2.16
Percent change from same month previous year	5.16	-3.77
Revenue ton-miles (billions)	1.16	0.99
Percent change from same month previous year	8.41	-14.75

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

For those planes that carry both freight and passengers, available freight ton-miles are calculated by subtracting available seat-miles times 0.1 from total available ton-miles. The data have been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month). These indicators are also important components of airline profitability addressed in the indicator entitled Domestic Air Revenue Load Factors.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carrier Traffic Statistics Monthly*, August 2000.



## Aircraft capacity utilization – passengers and freight

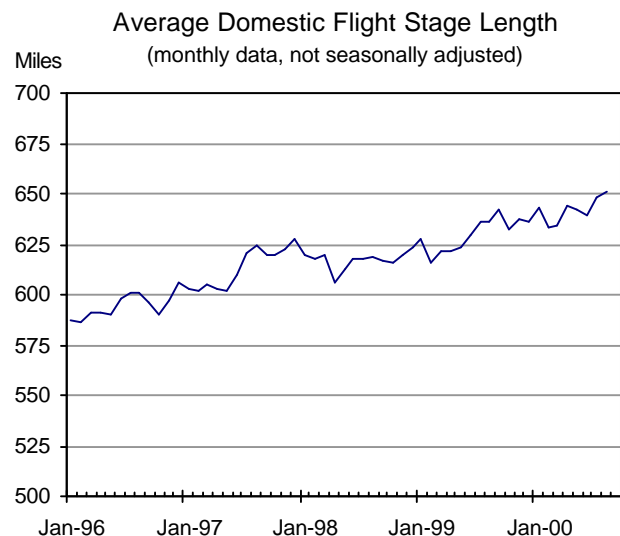
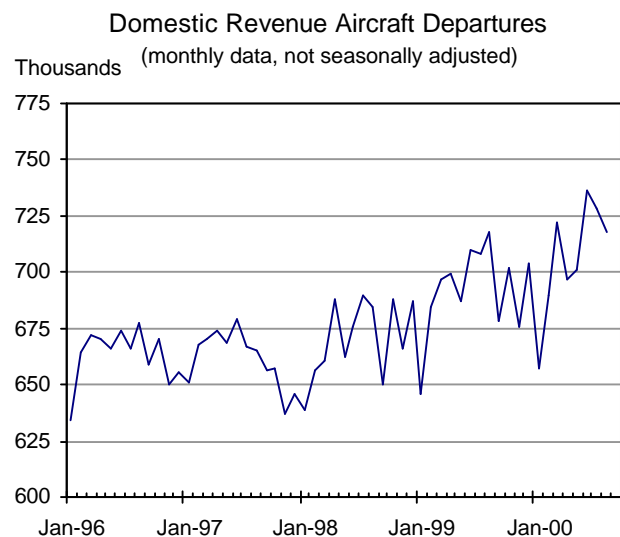
Aircraft load factors are used to measure aircraft in-flight capacity utilization.

NOTES: Load factor relates to the potential capacity of a system relative to its actual performance. In order to combine passenger and freight to calculate overall aircraft load factors, a common metric is needed: in this case, ton-miles is used. Thus, it is assumed that a passenger plus baggage weighs 200 pounds. The data do not include international flights by U.S. domestic carriers or domestic flights by foreign carriers.

Revenue Load Factors (percent)	Aug-99	Aug-00
Freight revenue load factor	34.2	34.4
Change from same month previous year	0.70	0.24
Passenger revenue load factor	73.5	75.6
Change from same month previous year	-1.90	2.06
Overall aircraft revenue load factor	59.3	60.4
Change from same month previous year	-0.90	1.12

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carrier Traffic Statistics Monthly*, August 2000.



## Flight availability

Frequency of aircraft departures, the number of connections required for a single trip, and the match between available flights and travelers' desired origin and destination points are all important determinants of scheduling convenience. Because data on connections are currently not available in a suitable format, flight stage length is used here to supplement the information on departures.

Flight stage length is the distance between take-off airport and landing airport. If the mix of origin and destination points are held constant, then an increase in flight stage length implies fewer connections are required for a trip and, therefore, higher quality of air passenger services.

The key relation is that departures and flight stage length will tend to move in opposite directions when changes are due to changes in the number of connections. For example, a trip from city A to city B with a connection in city C will have two departures, but generally a shorter average flight stage length, than the direct flight from A to B with a single departure.

NOTE: The data do not include international flights by U.S. domestic carriers or domestic flights by foreign carriers.

Domestic Flight Availability	Aug-99	Aug-00
Revenue aircraft departures (thousands)	718	718
Percent change from same month previous year	4.97	-0.03
Flight stage length (miles)	636	651
Percent change from same month previous year	2.75	2.35

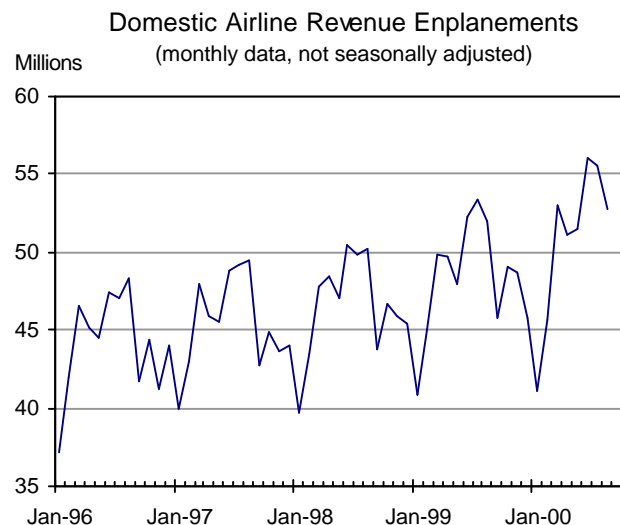
NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

The data has been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month).

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carrier Traffic Statistics Monthly*, August 2000.







## Enplanements

Revenue enplanements, the number of passengers boarding aircraft, measure the demand for gate and luggage services. Enplanements differ from the number of trips because passengers may board more than one flight between their origination point and ultimate destination.

NOTE: The data do not include international flights by U.S. domestic carriers or domestic flights by foreign carriers.

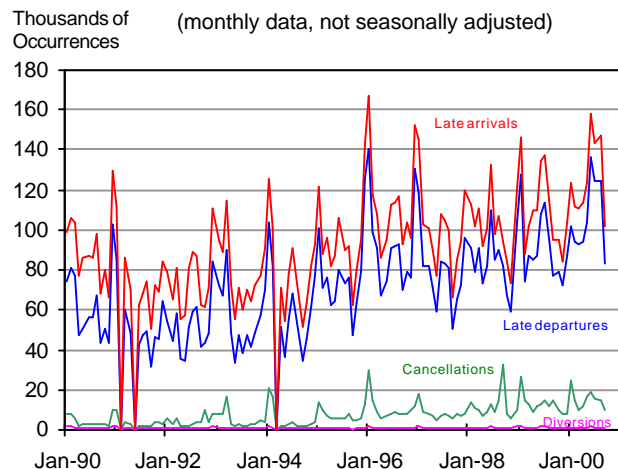
Domestic Passenger Aviation	Aug-99	Aug-00
Revenue aircraft enplanements (millions)	52.0	52.8
Percent change from same month previous year	3.51	1.45

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

The data has been adjusted to have a standard 30-day month by multiplying the data for each month by the ratio: 30/(actual days in month).

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, *Air Carrier Traffic Statistics Monthly*, August 2000.

Major Air Carrier Late Arrivals, Departures, Cancellations and Diversions  
(monthly data, not seasonally adjusted)



### On-time performance

The number of late arrivals and departures, cancellations, and diversions are a measure of service quality.

Late departures and arrivals are strongly seasonal, and are affected by weather and heavy demand in winter and summer months, respectively.

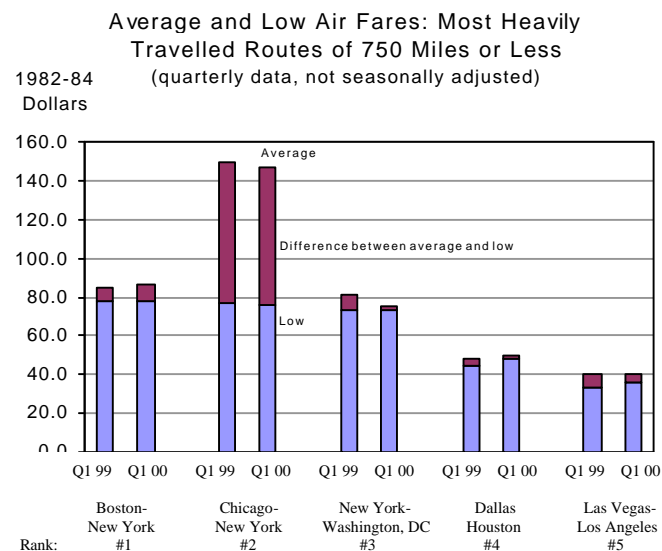
NOTES: A scheduled operation consists of any nonstop segment of a flight. The term "late" is defined as 15 minutes after the scheduled departure or arrival time. Major air carriers are the 10 largest U.S. air carriers. A cancelled flight is one that was not operated, but was listed in a carrier's computer reservation system within seven calendar days of the scheduled departure. A diverted flight is one that left from the scheduled departure airport, but flew to a destination point other than the scheduled destination point.

Due to a programming error, incorrect data were previously shown for late departures for the years 1997-1999. The revised data are on average 411 occurrences lower than were previously reported.

Aviation On-time Performance	Sep-99	Sep-00
Operations	460,251	463,097
Percent change from same month previous year	3.68	0.62
Late Arrivals	95,055	101,436
Percent change from same month previous year	1.66	6.71
Late Departures	76,971	83,225
Percent change from same month previous year	-6.60	8.13
Cancellations	15,243	10,365
Percent change from same month previous year	-53.66	-32.00
Diversions	798	985
Percent change from same month previous year	22.21	23.43

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics, Airline Service Quality Performance data.



NOTE: Blue portion of bar - lowest average fare for an airline meeting the criteria in the text. Red portion of bar - the difference between the average fare for all airlines, and the lowest average fare airline. Blue + Red portions of bar - the average fare for the market.

## Air fares and passenger volume for the top five major short routes

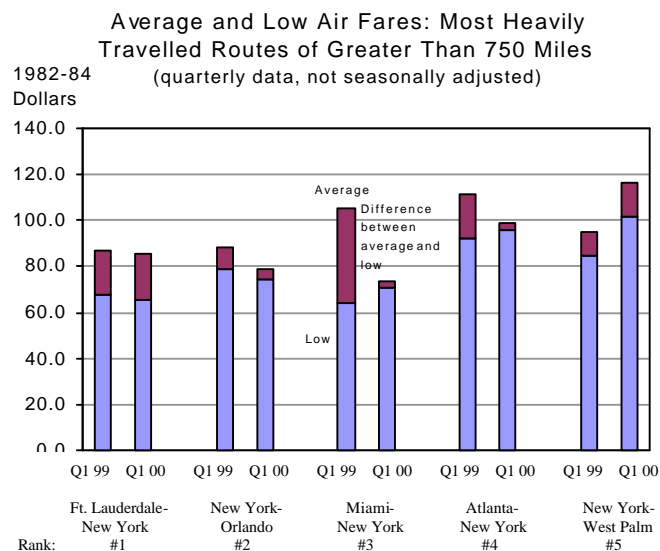
Passenger air fares are a measure of the price of air travel between cities. Major short routes consist of the top five routes of 750 miles and less by number of passengers for the most recent quarter. Large markets consist of the top 1,000 passenger markets at all distances, plus routes which have previously achieved this distinction. Low fares are the lowest average fare for an airline serving at least ten percent of passengers in the market, or the airline with the lowest average fare, if there is only one airline with more than a ten percent share.

In the first quarter of 2000, there were 526 large-market routes of 750 miles or less.

Consumer air fares (less than 750 miles)	Q1 99	Q1 00	% Change
<b>Boston-N.Y. (185 miles)</b>			
Average Fare (1982-84 \$)	85	87	1.70
Low Fare (1982-84 \$)	78	78	-0.11
Daily Passengers	6,264	6,611	5.54
<b>Chicago-N.Y. (728 miles)</b>			
Average Fare (1982-84 \$)	149	147	-1.96
Low Fare (1982-84 \$)	77	77	-0.85
Daily Passengers	5,987	6,108	2.02
<b>N.Y.-Wash DC (214 miles)</b>			
Average Fare (1982-84 \$)	81	75	-7.48
Low Fare (1982-84 \$)	74	74	0.06
Daily Passengers	5,529	5,786	4.65
<b>Dallas-Houston (236 miles)</b>			
Average Fare (1982-84 \$)	48	49	2.99
Low Fare (1982-84 \$)	45	48	6.02
Daily Passengers	5,523	5,730	3.75
<b>L Vegas-L.A. (236 miles)</b>			
Average Fare (1982-84 \$)	40	40	-0.20
Low Fare (1982-84 \$)	33	36	7.43
Daily Passengers	4,458	4,983	11.78

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation: Bureau of Transportation Statistics, and Office of the Assistant Secretary for Aviation and International Affairs, and <http://ostpxweb.ost.dot.gov/aviation/>.



NOTE: Blue portion of bar - lowest average fare for an airline meeting the criteria in the text. Red portion of bar - the difference between the average fare for all airlines, and the lowest average fare airline. Blue + Red portions of bar - the average fare for the market.

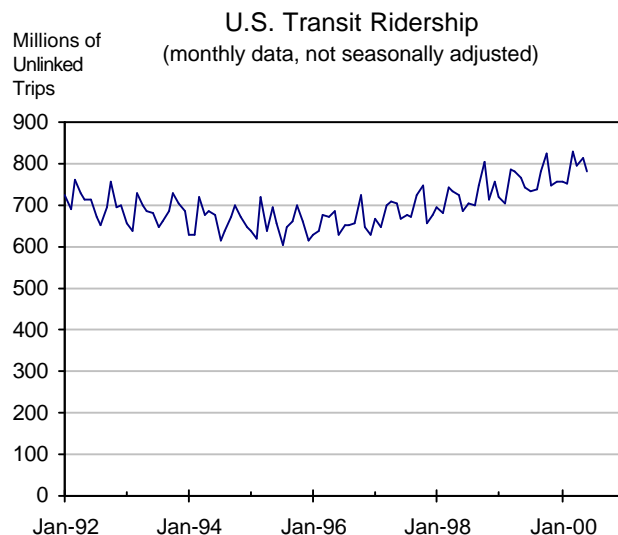
## Air fares and passenger volume for the top five major long routes

Major long routes consist of the top five routes of more than 750 miles by number of passengers for the most recent quarter. In the first quarter of 2000, there were 734 large-market routes of more than 750 miles.

Consumer air fares (greater than 750 miles)	Q1 99	Q1 00	% Change
<b>Ft. Lauder-N.Y. (1072 miles)</b>			
Average Fare (1982-84 \$)	87	85	-1.78
Low Fare (1982-84 \$)	67	66	-2.27
Daily Passengers	6,343	6,707	5.74
<b>N.Y.-Orlando (944 miles)</b>			
Average Fare (1982-84 \$)	88	79	-10.49
Low Fare (1982-84 \$)	79	74	-6.12
Daily Passengers	5,512	5,920	7.40
<b>Miami-N.Y. (756 miles)</b>			
Average Fare (1982-84 \$)	105	74	-30.01
Low Fare (1982-84 \$)	64	71	9.65
Daily Passengers	5,423	5,762	6.25
<b>Atlanta-N.Y. (1024 miles)</b>			
Average Fare (1982-84 \$)	111	99	-11.08
Low Fare (1982-84 \$)	92	96	3.87
Daily Passengers	5,052	4,582	-9.30
<b>N.Y.-W Palm (1093 miles)</b>			
Average Fare (1982-84 \$)	95	117	22.94
Low Fare (1982-84 \$)	85	102	19.69
Daily Passengers	4,935	4,393	-10.98

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation: Bureau of Transportation Statistics, and Office of the Assistant Secretary for Aviation and International Affairs, and <http://ostpxweb.ost.dot.gov/aviation/>.



## Public Transit

Public transportation includes transit bus, transit rail, commuter rail, trolleys, and several demand-responsive services.

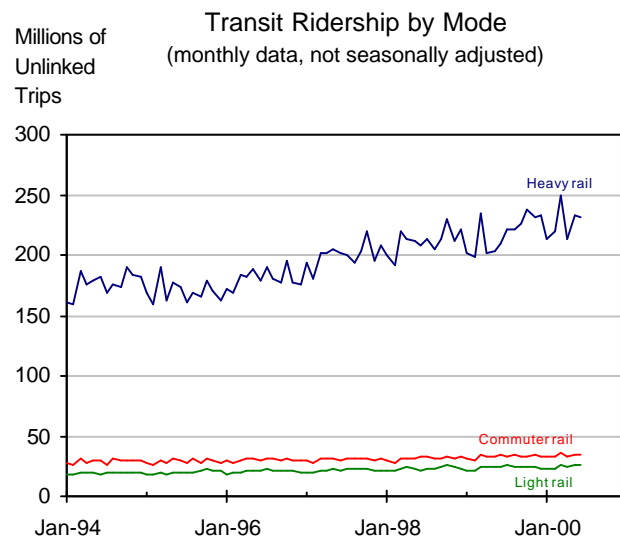
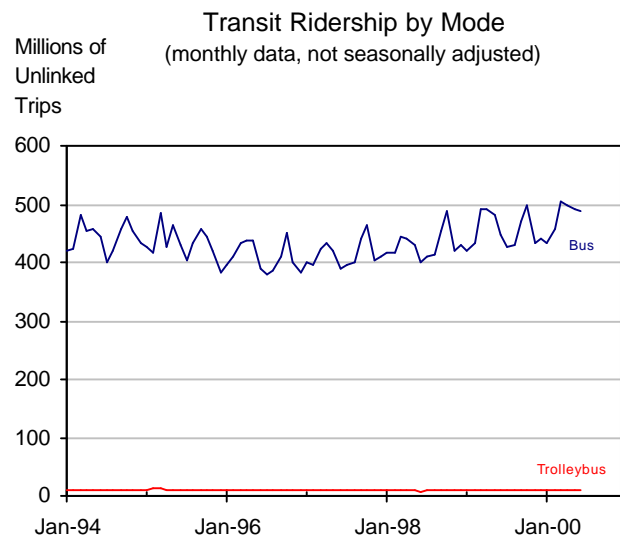
NOTE: According to the American Public Transportation Association (APTA), an unlinked transit trip is a trip on one transit vehicle. A person riding one vehicle from origin to destination takes one unlinked trip; a person who transfers to a second vehicle takes two unlinked trips; a person who transfers to a third vehicle takes three unlinked trips. APTA estimates that the number of people riding transit on an average weekday is 45 percent of the number of unlinked transit passenger trips.

Transit Ridership	Jun-99	Jun-00
Unlinked trips (in thousands)	743,836	779,146
Percent change from same month previous year	8.67	4.75

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: American Public Transportation Association, *APTA Quarterly Transit Ridership Report*, available at: <http://www.apta.com/stats/ridership/index.htm>.





### Public Transportation by mode

Ridership of heavy rail has been climbing faster than any other mode of public transportation. Bus ridership is almost 60 percent of total transit ridership.

NOTES: According to the American Public Transportation Association (APTA), an unlinked transit trip is a trip on one transit vehicle. A person riding one vehicle from origin to destination takes one unlinked trip; a person who transfers to a second vehicle takes two unlinked trips; a person who transfers to a third vehicle takes three unlinked trips. APTA estimates that the number of people riding transit on an average weekday is 45 percent of the number of unlinked transit passenger trips.

**Commuter Rail**— Railroad local and regional passenger train operations between a central city, its suburbs, and/or another central city. It may either be locomotive-hauled or self-propelled, and is characterized by multi-trip tickets, specific station-to-station fares, railroad employment practices, and usually only one or two stations in the central business district. Also known as “suburban rail.”

**Light Rail**— An electric railway with a “light volume” traffic capacity compared to “heavy rail.” Light rail may include multi-car trains or single cars. Also known as “Streetcar,” “Trolley car,” and “Tramway.”

**Heavy Rail**— An electric railway with the capacity of “heavy volume” of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signaling, and high platform loading.

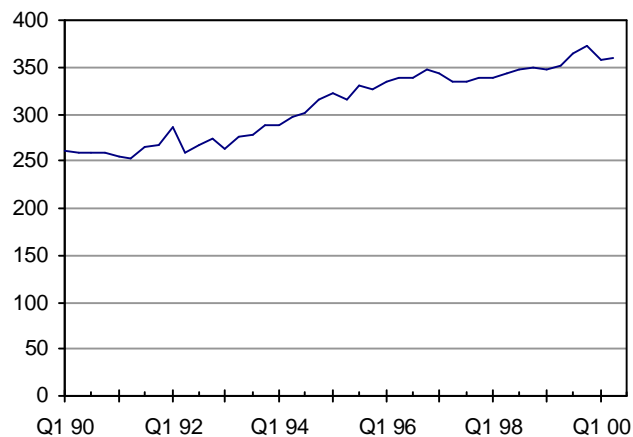
**Trolleybus**— Rubber-tired passenger vehicles operating singly on city streets. Trolleybuses are propelled by electricity drawn from an overhead electric line via trolleys.

Transit Ridership by Mode	Jun-99	Jun-00
Bus (thousands)	448,618	456,792
Percent change from same month previous year	12.38	1.82
Heavy Rail (thousands)	209,212	231,267
Percent change from same month previous year	0.62	10.54
Commuter Rail (thousands)	33,707	35,238
Percent change from same month previous year	4.56	4.54
Light Rail (thousands)	24,373	26,534
Percent change from same month previous year	12.39	8.87
Trolleybus (thousands)	10,389	11,337
Percent change from same month previous year	29.15	9.13

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: American Public Transportation Association, *APTA Quarterly Transit Ridership Report*, available at: <http://www.apta.com/stats/ridership/index.htm>.

Billions of  
Revenue  
Ton-Miles  
Rail Carloadings- Revenue Ton-Miles  
(quarterly data, not seasonally adjusted)



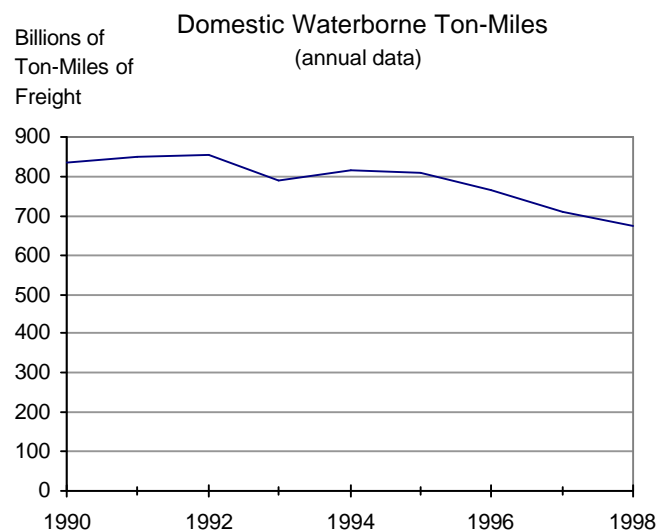
## Rail freight

Rail freight ton-miles have increased appreciably since 1990.

Rail Freight Revenue Ton-Miles	Q2 99	Q2 00
Total (billions)	351	360
Percent change from same quarter previous year	2.48	2.42

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCES: Association of American Railroads, *Railroad Revenues, Expenses, and Income. Class 1 Railroads in the United States*, R&E Series, and Surface Transportation Board, Office of Economics, Environmental Analysis and Administration at: <http://www.stb.dot.gov>.



## Domestic waterborne freight

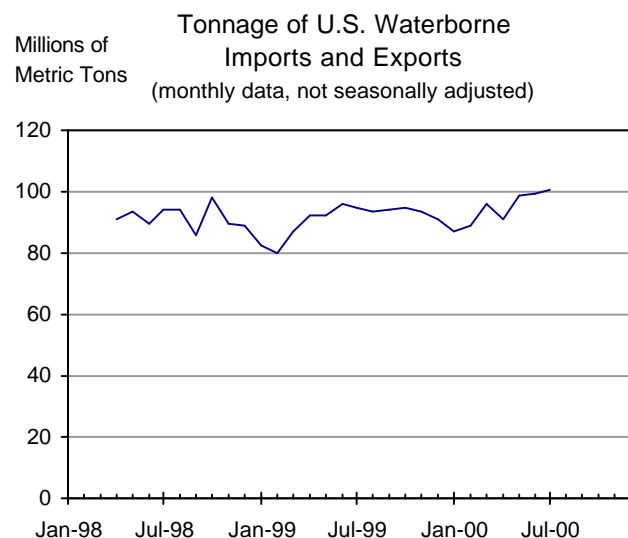
Domestic waterborne ton-miles show the level of freight flows through U.S. inland, coastal, and Great Lakes waterways. Domestic waterborne ton-miles have declined in recent years.

Petroleum and petroleum products, crude materials, and coal comprise most of the cargo moving in U.S. domestic waterborne trade.

NOTE: Data excludes traffic between ports in Puerto Rico and the Virgin Islands.

Domestic Waterborne Freight	1997	1998
Ton-miles (millions)	707,410	672,795
Percent change from previous year	-7.49	-4.89

SOURCE: U.S. Army Corps of Engineers, Waterborne Commerce of the U.S. (New Orleans, LA: Annual issues), Part 5, National Summaries, table 1-4, and similar tables in earlier editions.



## U.S. foreign waterborne freight

Import and export tonnage helps identify the volume of cargo flowing through U.S. ports and the resulting vessel traffic on U.S. coastal waters. It also helps identify needs for inter-modal truck and rail traffic.

Most U.S. coastal ports handle both foreign and domestic cargoes.

NOTE: A metric ton is equal to 2,204.6 pounds.

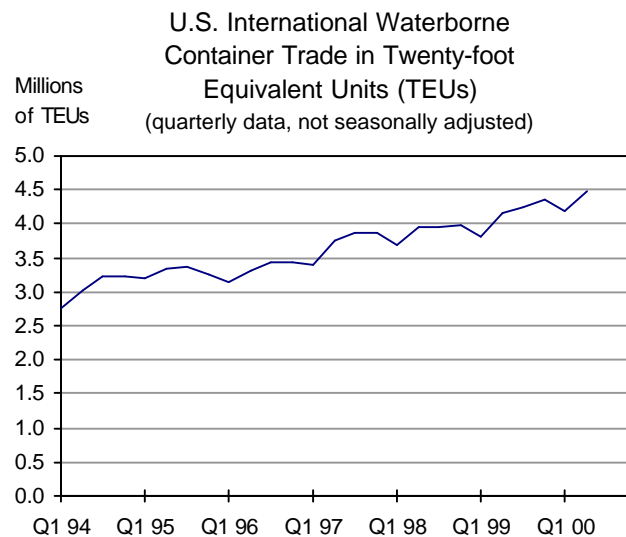
Waterborne Import and Export Trade	Jul-99	Jul-00
Total metric tons (thousands)	94,950	100,799
Percent change from same month previous year	1.07	6.16

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Statistical and Economic Analysis, U.S. Foreign Waterborne Transportation Statistics data, available at: <http://www.marad.dot.gov/statistics/usfwt/index.html>.







## Container traffic volume

International waterborne container traffic, measured in twenty-foot equivalent units (TEUs), helps identify container traffic trends affecting ports and related intermodal freight demand.

The majority of container traffic is manufactured goods.

U.S. International Container Traffic	Q2 99	Q2 00
Total waterborne TEUs (thousands)	4,156	4,479
Percent change from same quarter previous year	4.79	7.77

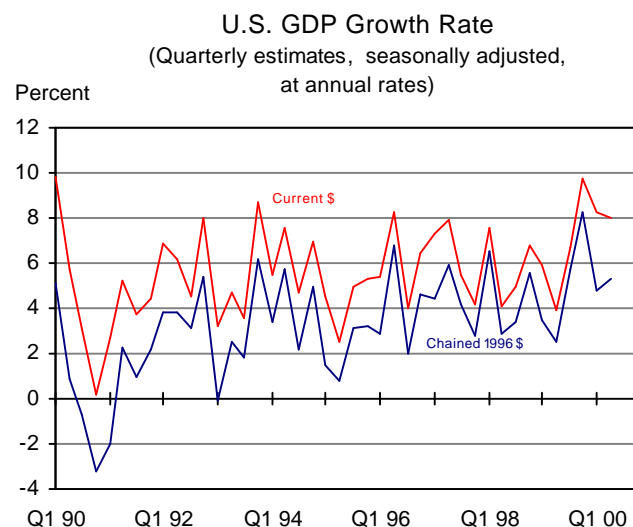
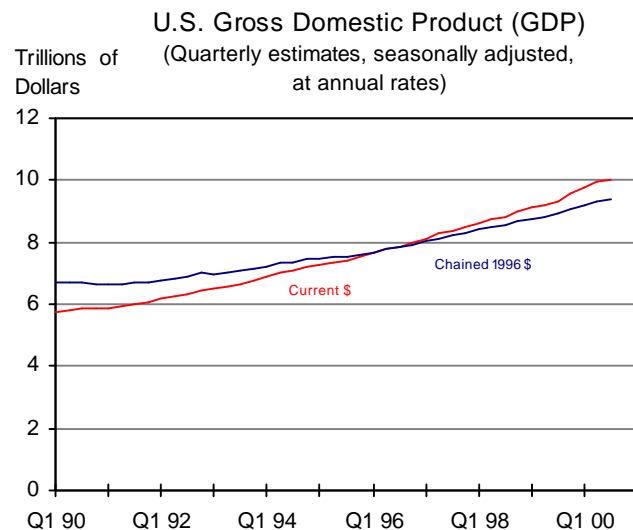
NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: Journal of Commerce, Port Import/Export Reporting Service (PIERS) data.

# Economic Growth

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### Growth in Gross Domestic Product

Gross Domestic Product (GDP) growth affects new demand for transportation services. GDP has grown in real terms in every quarter since 1993.

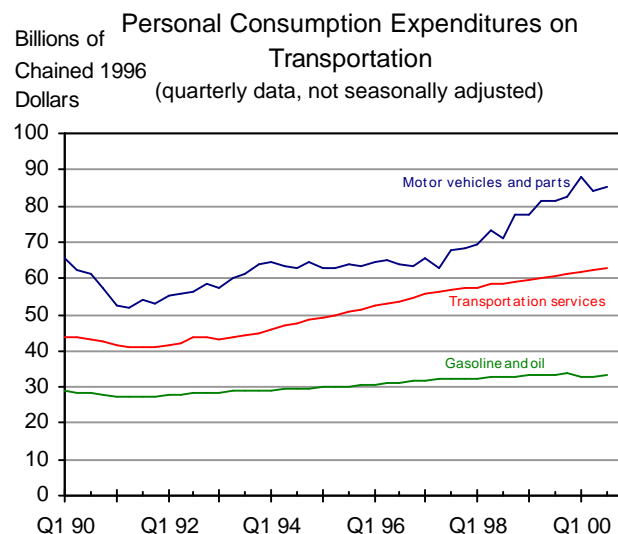
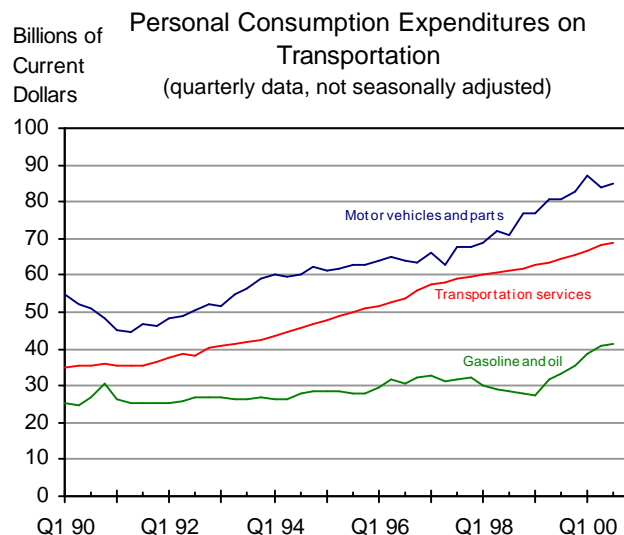
GDP is the net output of goods and services produced by labor and property located in the United States. Real GDP is expressed in chained 1996 dollars.

NOTES: Quarterly GDP data are presented at an annual rate.

Chained 1996 dollars are calculated using chain-type indices, rather than constant dollars, to measure real GDP. The chain-type method first calculates the real changes between adjacent years. Annual rates of real changes are then chained (multiplied) together to obtain the rate of real changes between non-adjacent years. Chained dollars are preferable to constant dollars, which merely reflect overall price inflation, because chained dollars capture the effect of changes in the components of GDP.

U.S. Gross Domestic Product	Q2 00	Q3 00
Billions of current dollars	9,946	10,052
Percent change from previous quarter	1.98	1.07
Billions of chained 1996 dollars	9,319	9,374
Percent change from previous quarter	1.38	0.59

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Products Accounts Data, November 30, 2000, available at: <http://www.bea.doc.gov/bea/dn1.htm>.



## Personal spending on transportation

Personal expenditures on transportation are a measure of consumer demand for transportation services. Since expenditures are the product of quantity and price, these expenditures are also influenced by changes in the prices of transportation related goods and services. To show the “real” changes in demand for transportation services over time, the expenditures are also presented in chained 1996 dollars. The traditional constant dollar measure is different from the chained dollar measure in that it gets rid of the effects of short term price shocks, in addition to general inflation effects. Therefore, expenditure measured in chained 1996 dollars reflect changes in quantities. For items with volatile prices, such as gasoline, changes in chained dollar expenditure over time can be very different from changes in current dollar expenditure.

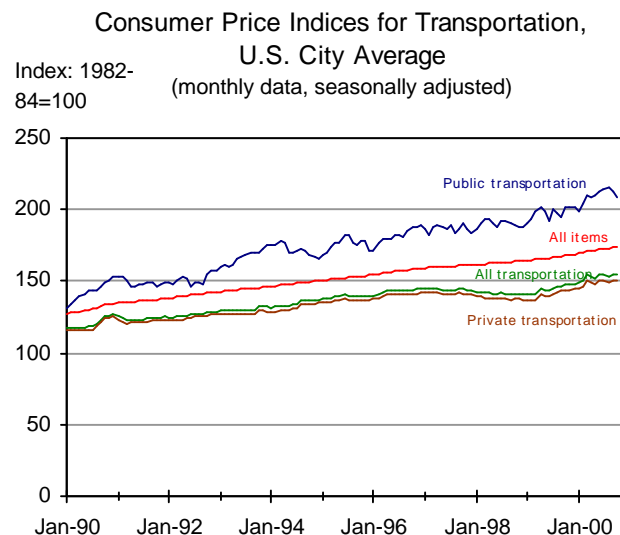
Personal Consumption Expenditures	Q2 00	Q3 00
Motor vehicles and parts (billions of current dollars)	83.88	85.13
Percent change from previous quarter	-3.95	1.49
Gasoline and oil (billions of current dollars)	40.83	41.30
Percent change from previous quarter	5.70	1.16
Transportation services (billions of current dollars)	68.20	68.85
Percent change from previous quarter	2.02	0.95

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, estimates based on *Survey of Current Business*, October 2000, NIPA Table 2.2.

Personal Consumption Expenditures	Q2 00	Q3 00
Motor vehicles and parts (billions of chained 1996 dollars)	83.98	85.30
Percent change from previous quarter	-4.52	1.58
Gasoline and oil (billions of chained 1996 dollars)	33.05	33.38
Percent change from previous quarter	0.76	0.98
Transportation services (billions of chained 1996 dollars)	62.48	62.70
Percent change from previous quarter	0.97	0.36

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, estimates based on *Survey of Current Business*, October 2000, NIPA Table 2.3.





NOTES: The "All items" CPI was revised by BLS from the values previously reported in this publication. The affected values are for January 2000 through August 2000, and show an increase of 0.1 index points for each of these months, except May and July, which increased by 0.2 index points. Further information is available at <http://www.bls.gov/cpirev01.htm>.

The labels for the Public and Private transportation were interchanged in last month's report.

## Prices of transportation services to American households

The Consumer Price Index (CPI) tracks the price of a market basket of goods and services purchased by U.S. households over time. Both monthly and annual changes are reported in the tables for the CPI in order to facilitate comparison with other series.

NOTE: 1982-1984=100: The consumer price index for a specific item is a weighted average of the prices for the individual components of the item. The weights are determined by the expenditure shares of the individual components based on a survey of consumer expenditure during the base year(s). The base year prices is then normalized to 100. For some items, BLS establishes weights using several years of consumer expenditure surveys in order to smooth out the effects of short-term price shocks and of the business cycle. Weights formed using several years will give a more accurate measure of typical consumer expenditure patterns.

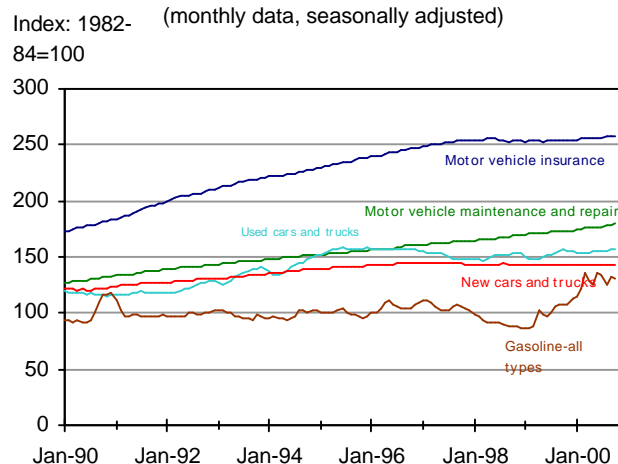
Price Index (1982-84=100)	Sep-00	Oct-00
Public transportation	213.0	208.0
Percent change from previous month	-1.25	-2.35
All items	173.6	173.9
Percent change from previous month	0.52	0.17
All Transportation	154.8	154.2
Percent change from previous month	1.04	-0.39
Private Transportation	150.7	150.3
Percent change from the previous month	1.28	-0.27

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/cpihome.htm>.

Price Index (1982-84=100)	Oct-99	Oct-00
Public transportation	201.5	208.0
Percent change from same month previous year	6.11	3.23
All items	168.1	173.9
Percent change from same month previous year	2.56	3.45
All transportation	147.1	154.2
Percent change from same month previous year	4.18	4.83
Private transportation	143.2	150.3
Percent change from same month previous year	3.99	4.96



Consumer Price Indices for Components of Private Transportation, U.S. City Average

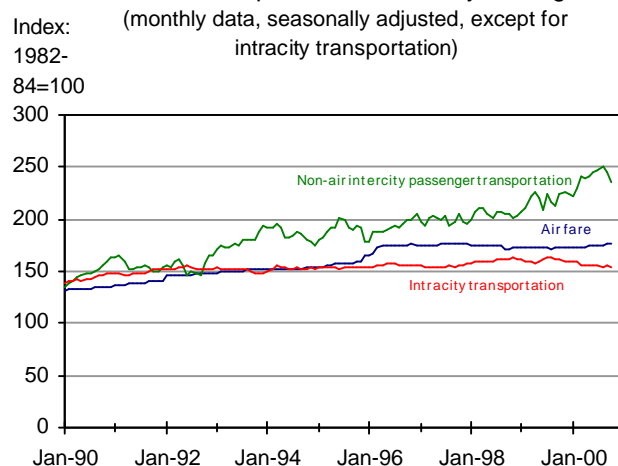


## Prices of household transportation components

The transportation component index of the CPI shows changes in transportation prices for consumers, and includes motor vehicle insurance, maintenance and repair, used and new cars and trucks, gasoline (all types), air fare, and intercity transportation.

NOTE: Other Intercity passenger transportation consists of Amtrak, commuter rail, buses, and other for-hire non-air modes of transportation between urban areas.

Consumer Price Indices for Components of Public Transportation, U.S. City Average

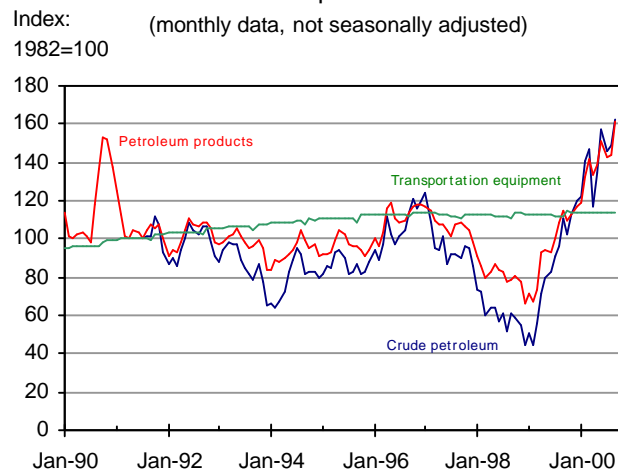


Price Index (1982-84=100)	Sep-00	Oct-00
Motor vehicle insurance	257.7	257.2
Percent change from previous month	0.19	-0.19
Motor vehicle maintenance and repair	178.7	179.4
Percent change from previous month	0.28	0.39
Used cars and trucks	156.2	157.9
Percent change from previous month	0.64	1.09
New cars and trucks	142.7	142.2
Percent change from previous month	-0.21	-0.35
Gasoline all-types	132.1	130.2
Percent change from previous month	5.43	-1.44
Non-air intercity passenger transportation	244.9	236.3
Percent change from previous month	-2.20	-3.51
Airfare	176.8	176.5
Percent change from previous month	0.97	-0.17
Intracity transportation (not seasonally adjusted)	155.3	154.5
Percent change from previous month	0.45	-0.52

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/cpihome.htm>.



## Key Producer Price Indices for Transportation

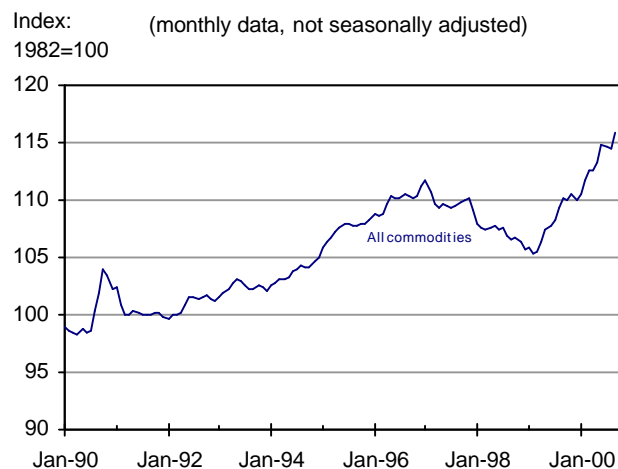


## Prices of transportation inputs

Producer prices are those charged for the output of firms in a particular industry, or by all firms, regardless of industrial classification, for a particular commodity. These prices exclude markups at later stages of processing and the retail level. Producer prices reflect prices charged to anyone purchasing directly from the firm, including consumers, when the firm also serves as a retailer.

Changes in producer prices for transportation inputs suggest the direction of future costs for providing transportation services. Motor vehicle prices are strongly seasonal, declining as the model year culminates each September.

## Producer Price Indices: All Commodities

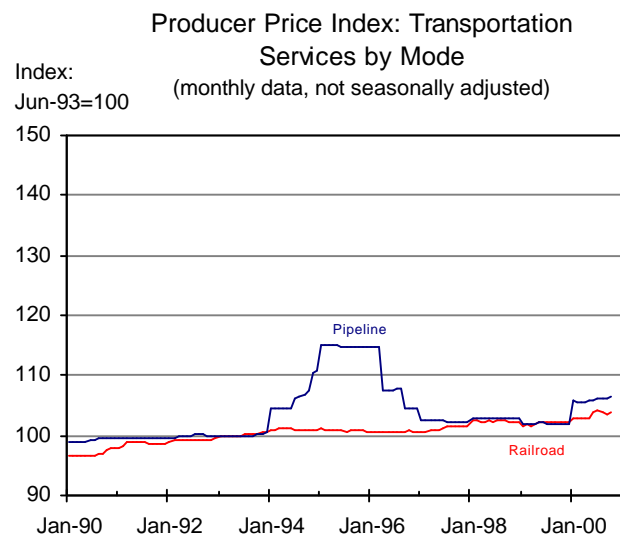
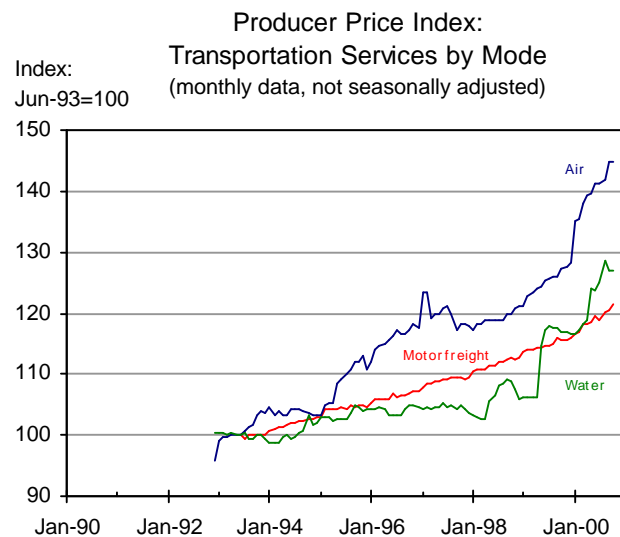


Price Index (1982=100)	Sep-99	Sep-00
Petroleum products	114.5	161.3
Percent change from same month previous year	45.88	40.83
Transportation equipment	111.5	113.4
Percent change from same month previous year	0.36	1.71
Crude petroleum	110.5	162.2
Percent change from same month previous year	81.94	46.87
All commodities	110.2	115.8
Percent change from same month previous year	3.39	5.08

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

Data from July 2000 to October 2000 are preliminary. A more complete description of producer prices is given in Chapter 14 of the BLS Handbook of Methods, available at: [www.bls.gov/opub/hom/homch14\\_e.htm](http://www.bls.gov/opub/hom/homch14_e.htm).

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/ppihome.htm>.



### Prices of for-hire transportation services

Producer prices reflect prices charged to anyone, including consumers, when the firm also serves as a retailer. Actual prices to users of transportation services will differ due to substitution between domestic and foreign markets, and substitution between user- and market-provided services.

Price Index (Jun-93=100)	Oct-99	Oct-00
Air transportation	127.4	144.7
Percent change from the same month previous year	6.14	13.61
Water transportation	117.1	126.9
Percent change from the same month previous year	7.66	8.41
Motor freight transportation and warehousing	115.5	121.4
Percent change from the same month previous year	2.58	5.11
Railroad transportation	102.3	104.0
Percent change from the same month previous year	-0.09	1.71
Pipelines, excluding natural gas	101.9	106.4
Percent change from the same month previous year	-0.91	4.45

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

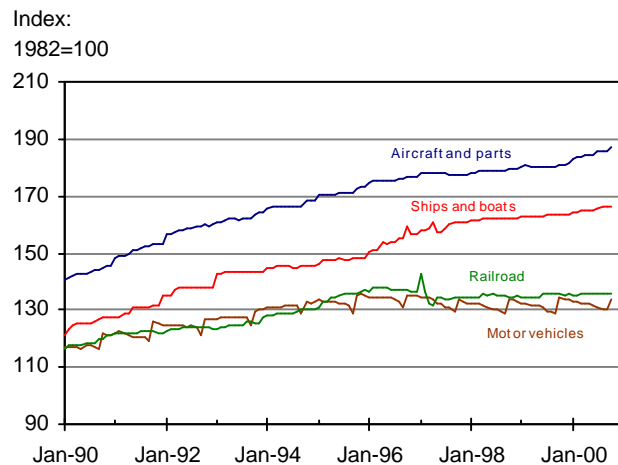
Data from July 2000 to October 2000 are preliminary. The original data for the indices in this table have different base periods. For comparability, the indices have been adjusted to have a common base period (1993).

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm/>.





Producer Price Index: Equipment by Mode  
(monthly data, not seasonally adjusted)



## Producer prices for transportation equipment to industry

Transportation equipment prices have accounted for about 47 percent of the total price of user-operated transportation in recent years (Table 2-13, *National Transportation Statistics 1999*, Bureau of Transportation Statistics, U.S. Department of Transportation).

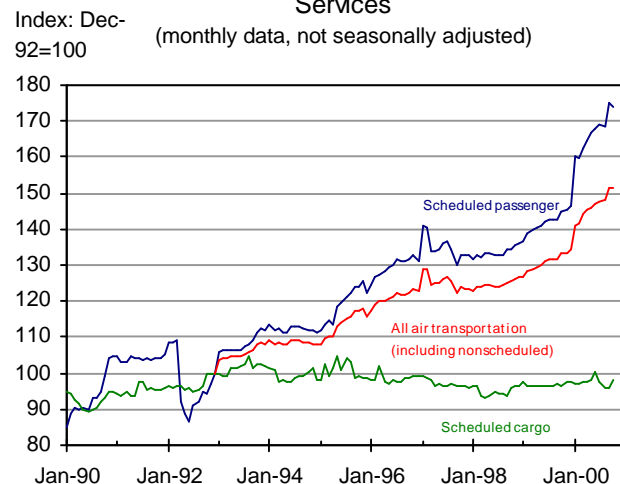
NOTE: Data from July 2000 to October 2000 are preliminary.

Price Index (1982=100)	Oct-99	Oct-00
Aircraft and parts	180.6	187.2
Percent change from same month previous year	0.52	3.65
Ships and boats	163.5	166.4
Percent change from same month previous year	0.86	1.77
Railroad equipment	135.7	135.9
Percent change from same month previous year	0.89	0.15
Motor vehicles and motor vehicle equipment	134.5	133.7
Percent change from same month previous year	0.60	-0.59

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm>.

Producer Price Index: Air Transportation Services



### Prices of air transportation services

Producer prices for scheduled air transportation services represent prices for business and personal travel, as well as shipment of high-value freight. Because producers also act as retailers, a change in prices charged by airlines is immediately passed on to consumers.

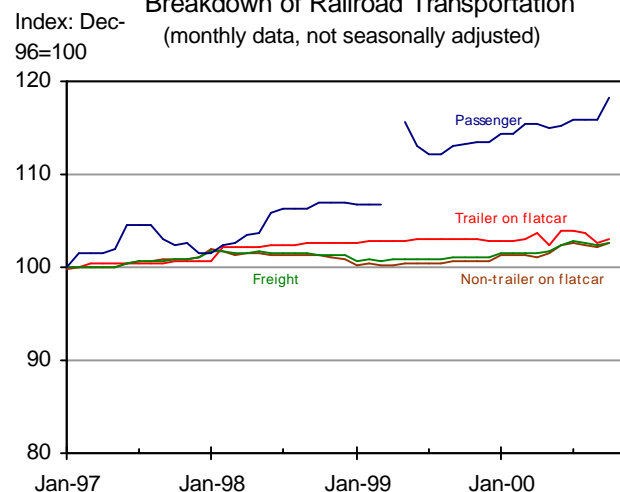
NOTE: Data from July 2000 to October 2000 are preliminary. The original data for the indices in this table have different base periods. For comparability, the indices have been adjusted using December 1992 as the base period.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm>.

Price Index (Dec-92=100)	Oct-99	Oct-00
Scheduled air transportation - passenger	144.9	173.7
Percent change from same month previous year	7.70	19.88
All air transportation (including nonscheduled)	133.1	151.2
Percent change from same month previous year	6.14	13.60
Scheduled air transportation - cargo	96.6	97.9
Percent change from same month previous year	0.66	1.31

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

Producer Price Index: Breakdown of Railroad Transportation



### Prices of rail transportation services

Producer prices for rail transportation indicate prices to producers for freight and to passengers for inter-city travel. Rail transportation of trailers is an important component of inter-modal freight transportation. See indicator for prices of transportation services for the aggregated producer price index for rail transportation services.

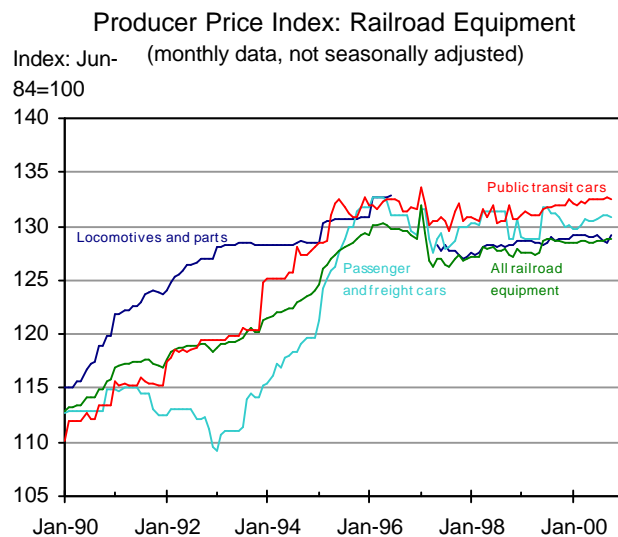
NOTE: Data from July 2000 to October 2000 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/ppihome.htm>.

Price Index (Dec-96=100)	Oct-99	Oct-00
Passenger	113.2	118.2
Percent change from the same month previous year	5.79	4.42
Trailer on flatcar	103.0	103.1
Percent change from the same month previous year	0.29	0.10
Freight	101.1	102.6
Percent change from the same month previous year	-0.30	1.48
Non-trailer on flatcar	100.7	102.6
Percent change from the same month previous year	-0.49	1.89

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.





NOTE: Data for July, 1996 to April, 1997 for locomotives were affected by a strike at GM, and a revision of the BLS weighting scheme. Data for this period are anomalous, and are not depicted in the graph.

## Prices of rail equipment

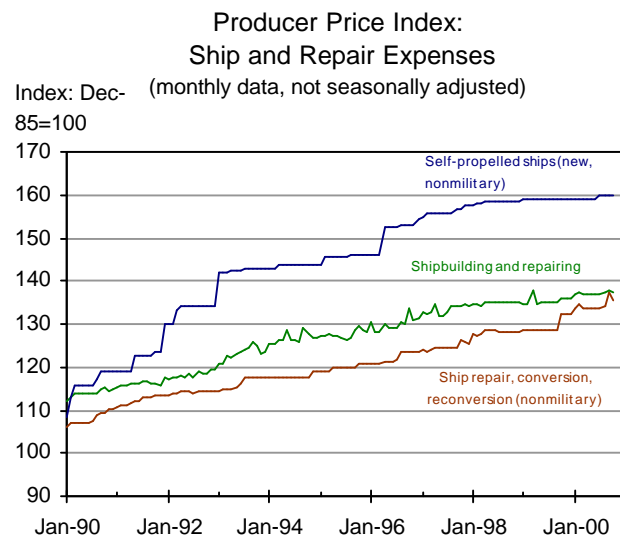
Rail equipment represents a major cost to rail service providers.

NOTE: Data from July 2000 to October 2000 are preliminary. The series presented on this page use an industry-based PPI, rather than the commodity-based PPI used on page 30, because the industry-based PPI was less effected by these events.

Price Index (Jun-84=100)	Oct-99	Oct-00
Public transit cars, all rebuilt cars, and all car parts	132.0	132.5
Percent change from same month previous year	0.08	0.38
Passenger and freight cars, new (excluding parts)	130.9	130.8
Percent change from same month previous year	1.63	-0.08
Locomotives and parts	128.8	129.2
Percent change from same month previous year	0.47	0.31
All railroad equipment	128.7	128.9
Percent change from same month previous year	1.10	0.16

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm>.



### Price of equipment and repair services for water transportation

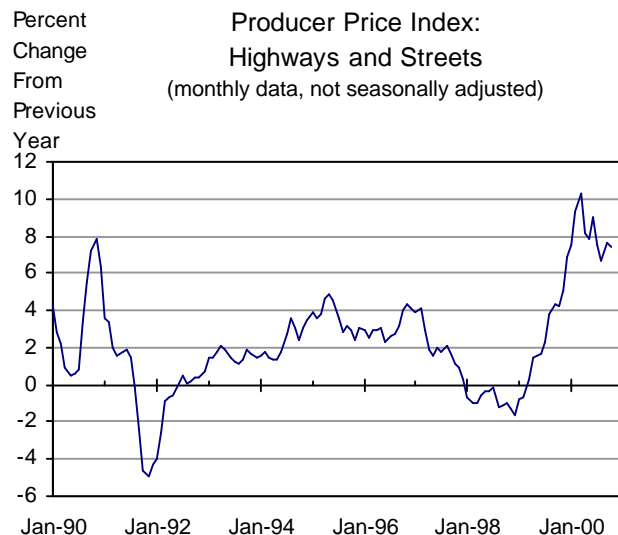
Ships and repair expenses are major costs in providing water transportation services.

Price Index (Dec-85=100)	Oct-99	Oct-00
Self-propelled ships (new , nonmilitary)	158.9	160.1
Percent change from same month previous year	0.13	0.76
Ship building and repairing	136.0	137.5
Percent change from same month previous year	0.82	1.10
Ship repair, conversion, reconversion (nonmilitary)	132.1	135.6
Percent change from same month previous year	2.96	2.65

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

Data from July 2000 to October 2000 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm>.



## Prices of highway and street construction

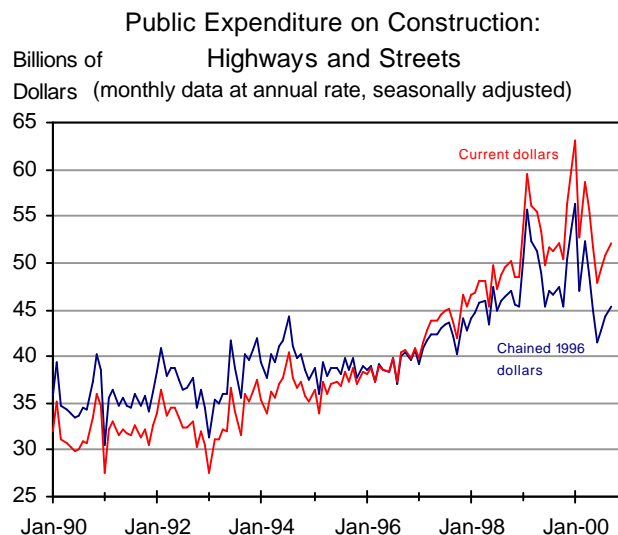
Construction prices for highways and streets represent the price to government in providing a key component of transportation infrastructure.

Price Index (Jun-86=100)	Oct-99	Oct-00
Highways and streets	128.8	138.3
Percent change from same month previous year	4.21	7.38

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

Data from July 2000 to October 2000 are preliminary.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/datahome.htm>.

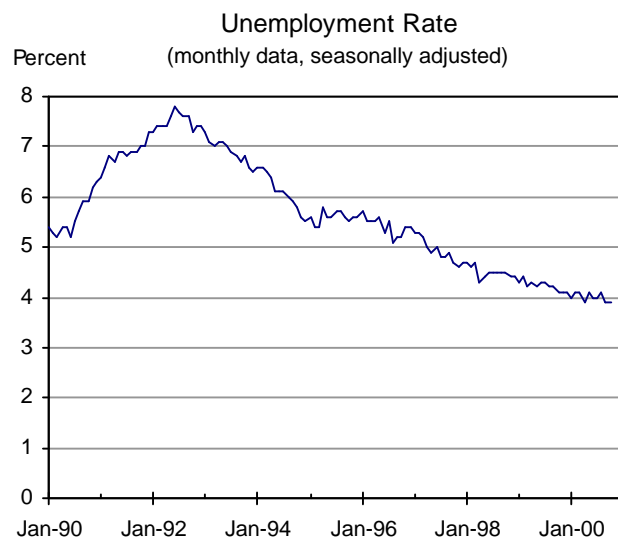


## Public expenditure on construction of highways and streets

Highways and streets are the largest component of public transportation infrastructure spending.

Public Expenditure on Construction	Aug-00	Sep-00
Highways and streets (billions of current dollars)	50.9	52.1
Percent change from previous month	3.10	2.44
Highways and streets (billions of chained 1996 dollars)	44.2	45.3
Percent change from previous month	3.19	2.44

SOURCE: U.S. Department of Commerce, Bureau of the Census, available at: <http://www.census.gov/pub/const/c30/>.

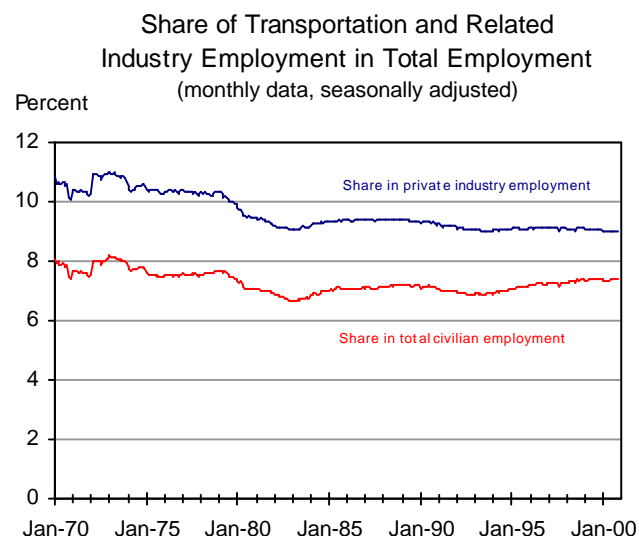
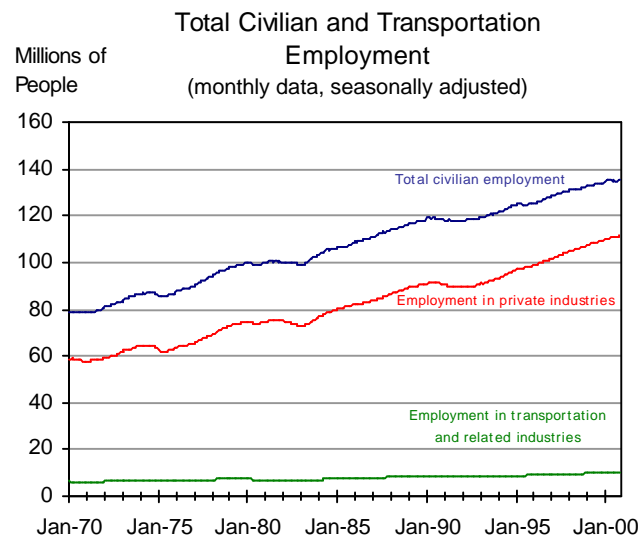


## Unemployment rate

The generally low unemployment rate in recent years suggests a tight labor market for industry in general, as well as for transportation firms. It also suggests increased demand for transportation to and from work, as well as for leisure travel.

Civilian Labor Force	Sep-00	Oct-00
Unemployment rate (percent)	3.9	3.9
Number of unemployed (thousands)	5,477	5,496

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Overall BLS Most Requested Series, available at: <http://stats.bls.gov/top20.html>.



## Transportation employment

Transportation employment can be measured in various ways. One broad measure is employment in transportation-related industries, including for-hire transportation (railroad, trucking, air, water, pipeline, transit, and transportation services) and industries that support transportation directly (such as motor vehicle and equipment manufacturing, aircraft manufacturing, auto dealers and service stations, and auto repair and parking services).

Transportation-related industry employment does not include transportation occupations in non-transportation industries, such as truck drivers working for wholesale and retail stores. Based on data from the U.S. Department of Labor, Bureau of Labor Statistics, BTS estimated that employment in transportation occupations in non-transportation industries was 5.5 million in 1998. When employment in transportation occupations in non-transportation industries is included, total transportation-related employment would account for about 12 percent, or 1 out of every 8, of U.S. civilian jobs.

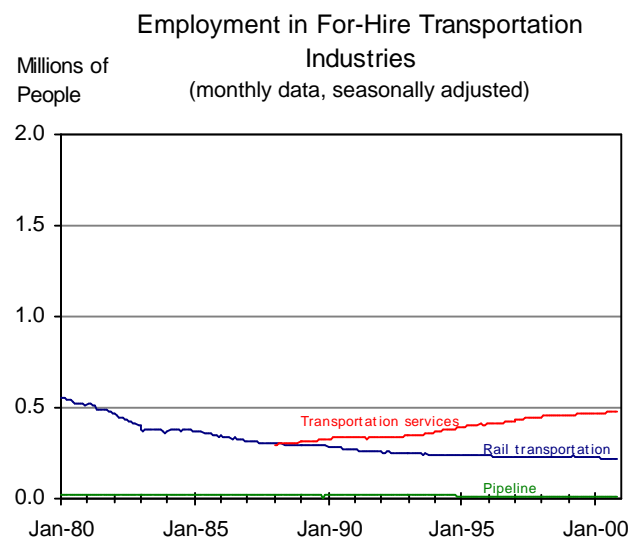
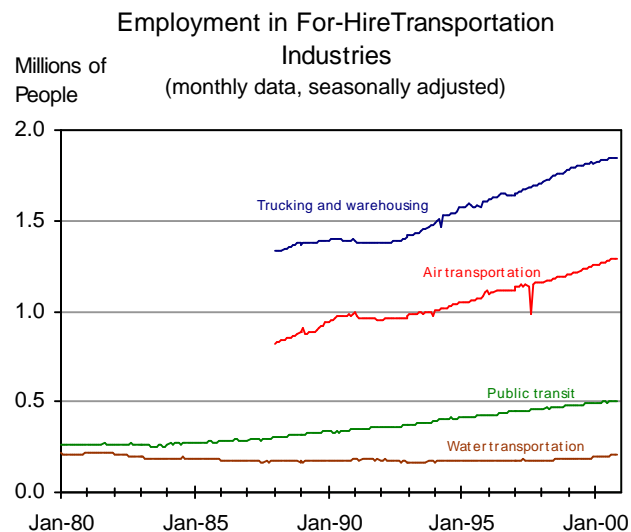
Employment	Sep-00	Oct-00
Total civilian employment (thousands)	135,161	135,422
Percent change from previous month	0.18	0.19
Employment in private industries (thousands)	111,248	111,365
Percent change from previous month	0.21	0.11
Employment in transport and related industries (thousands)	9,977	10,014
Percent change from previous month	-0.06	0.37

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment Status of Civilian Population by sex and age ("A" Tables) and Employees on nonfarm payrolls by industry ("B" Tables), available at: <http://www.bls.gov/cpsatabs.htm>.

Share of Transportation and Related Industry Employment	Sep-00	Oct-00
As share of private industry employment (percent)	8.97	8.99
Change from previous month	-0.02	0.02
As share of total civilian employment (percent)	7.38	7.39
Change from previous month	-0.02	0.01

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment Status of Civilian Population by sex and age ("A" Tables) and Employees on nonfarm payrolls by industry ("B" Tables), available at: <http://www.bls.gov/cpsatabs.htm>.





## For-Hire transportation employment

Employment in for-hire transportation industries accounted for about 45 percent of total transportation-related industry employment in recent years. The trucking and warehousing industry and air transportation together accounted for about 70 percent of the employment in for-hire transportation in the last few years. Air transportation has been leading in employment growth among for-hire transportation industries for the past two years.

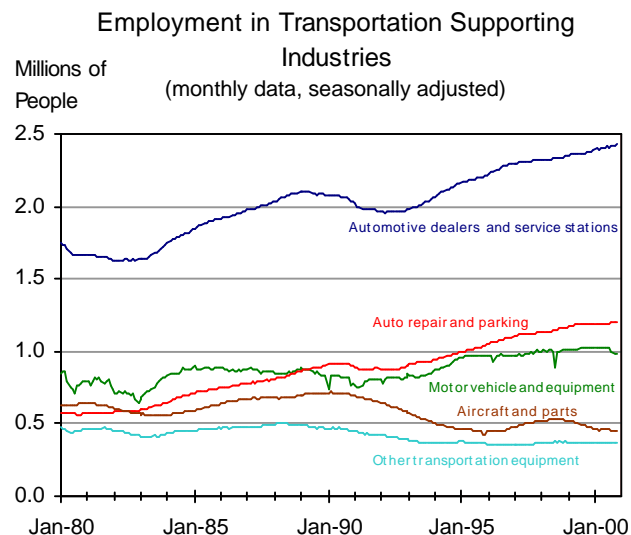
NOTE: For-hire transportation includes establishments providing passenger and freight transportation and related services on a fee basis to the general public or other business enterprises. For-hire does not include in-house transportation establishments within non-transportation enterprises, which provide transportation services for the enterprises' own use.

Employment in For-Hire Transportation Industries	Sep-00	Oct-00
Trucking and warehousing (thousands)	1,848	1,849
Percent change from previous month	0.16	0.05
Air transportation (thousands)	1,288	1,295
Percent change from previous month	0.00	0.54
Public transit (thousands)	501	503
Percent change from previous month	-0.40	0.40
Transportation services (thousands)	477	479
Percent change from previous month	0.21	0.42
Rail transportation (thousands)	219	219
Percent change from previous month	-0.90	0.00
Water transportation (thousands)	205	208
Percent change from previous month	0.49	1.46
Pipeline (thousands)	12	12
Percent change from previous month	0.00	0.00

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment Status of Civilian Population by sex and age ("A" Tables) and Employees on nonfarm payrolls by industry ("B" Tables), available at: <http://www.bls.gov/cpsatabs.htm>.







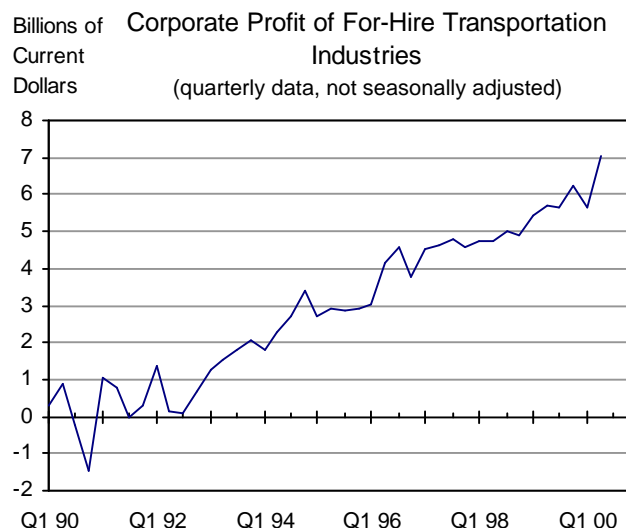
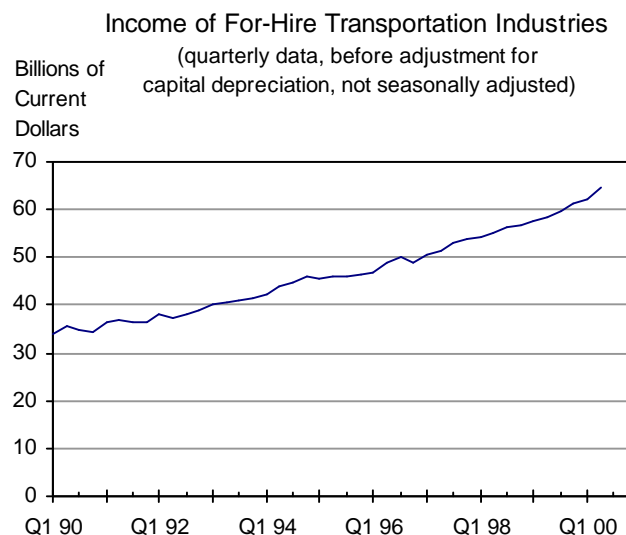
## Transportation supporting industry employment

Employment in transportation supporting industries accounts for over half of total transportation-related industry employment. Automotive dealers and service stations employ the most people among transportation supporting industries. Employment in transportation equipment manufacturing industries has fluctuated, with slow growth in motor vehicle and equipment manufacturing jobs and a decrease in aircraft and other transportation equipment manufacturing jobs in recent years. In contrast, the auto repair and parking service industries have enjoyed fast employment growth for the past two decades.

Employment in Transportation Supporting Industries	Sep-00	Oct-00
Auto dealers and service stations (thousands)	2,420	2,434
Percent change from previous month	0.08	0.58
Auto repair and parking (thousands)	1,199	1,209
Percent change from previous month	0.08	0.83
Motor vehicle and equipment manufacturing (thousands)	986	983
Percent change from previous month	-0.70	-0.30
Aircraft and parts manufacturing (thousands)	456	456
Percent change from previous month	0.00	0.00
Other transportation equipment manufacturing (thousands)	366	367
Percent change from previous month	-0.81	0.27

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Employment Status of Civilian Population by sex and age ("A" Tables) and Employees on nonfarm payrolls by industry ("B" Tables), available at: <http://www.bls.gov/cpsatabs.htm>.





## Transportation industry profit and income

Income and profit are two measures of industry performance. The for-hire transportation industry is much more profitable today than it was in the early 1990s. In the second quarter of 2000, profit of for-hire transportation surged up 25 percent from its level of the first quarter. Measured as the share of profit in total income, the average profit rate of domestic industries has been about 10 percent in 1999 and the first two quarters of 2000. In comparison, the profit rate of the for-hire transportation industry was 11 percent in the second quarter of 2000. For the first time in more than a decade, for-hire transportation profits out performed the overall economy.

NOTE: For-hire transportation includes establishments providing passenger and freight transportation and related services on a fee basis to the general public or other business enterprises. For-hire does not include in-house transportation establishments within non-transportation enterprises, which provide transportation services for the enterprises' own use.

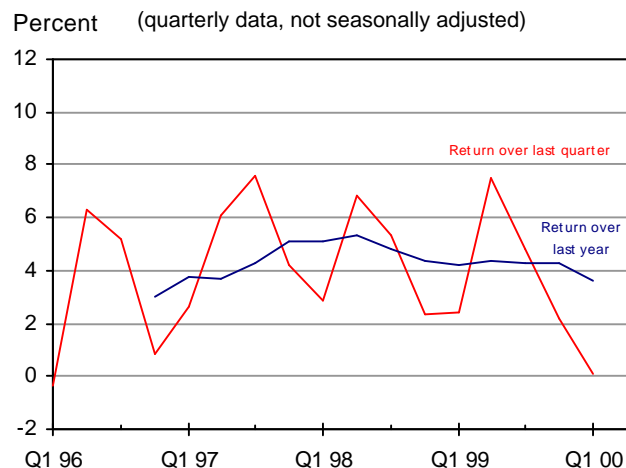
Income of a for-hire transportation industry is the difference between its revenue and the cost of its intermediate inputs (or goods and services consumed in providing transportation services). If an industry has no operations in foreign countries and its income comes entirely from its production activities (in contrast to, for example, financial activities), its income would be the same as its contribution to Gross Domestic Product.

For-Hire Transportation Industries	Q1 00	Q2 00
Income (billions of dollars)	62.08	64.43
Percent change from previous quarter	1.60	3.79
Profit (billions of dollars)	5.65	7.05
Percent change from previous quarter	-9.24	24.78

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, estimates based on *Survey of Current Business*, July 2000, NIPA Table 6.1C and Table 6.16C.



Real Return on Assets for Large U.S. Air Carriers



### Air carrier's real return on assets

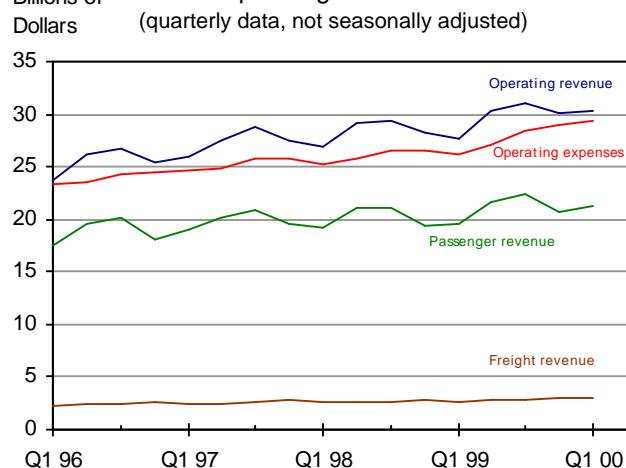
Return on assets is a measure of the profitability of investment adjusted for inflation. Improving profits depends on a combination of holding down costs while growing revenue. Air carrier's major source of revenue is passenger fares. Freight revenue has increased in importance for large air carriers in recent years, but is much smaller than passenger revenue. Air carrier's asset returns are highly seasonal due to the seasonality of passenger revenues.

NOTES: Return on assets is the ratio of net income to the average of beginning- and end-of-period assets for large air carriers. When net income and assets are deflated using the average CPI, the nominal rate of return is converted into a real rate of return.

The data include profits of both foreign and domestic operations for U.S. air carriers with more than 20 million dollars in annual operating revenue.

SOURCES: U.S. Department of Transportation, Bureau of Transportation Statistics, Air Carrier Financial Statistics data; and U.S. Department of Labor, Bureau of Labor Statistics, available at: <http://www.bls.gov/cpihome.htm>.

Operating Expenses and Breakdown of Operating Revenues



Percent	Q1 99	Q1 00
Return over last quarter	2.44	0.07
Change from same quarter previous year	-0.41	-2.37
Return over last year	4.19	3.59
Change from same quarter previous year	-0.93	-0.60

NOTE: Data for the last year are preliminary.

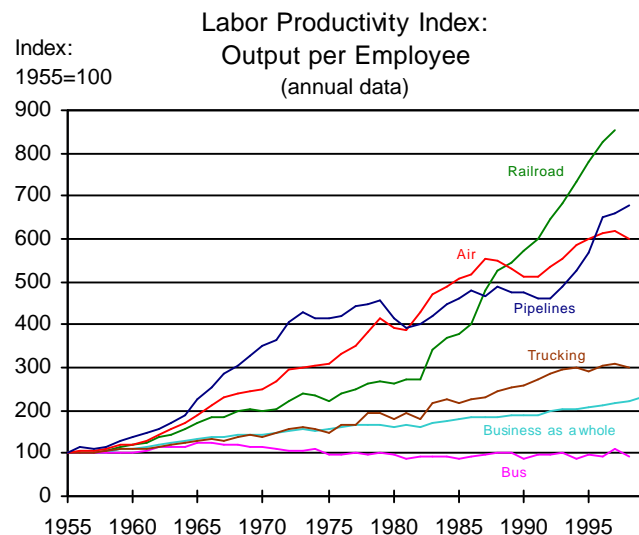
NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

Billion Dollars	Q1 99	Q1 00
Operating revenues	27.62	30.22
Percent change from same quarter previous year	2.74	9.42
Operating expenses	26.23	29.27
Percent change from same quarter previous year	4.00	11.57
Passenger revenues	19.54	21.34
Percent change from same quarter previous year	1.68	9.22
Freight revenues	2.64	2.94
Percent change from same quarter previous year	2.26	11.14

NOTE: Data for the last year are preliminary.

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.



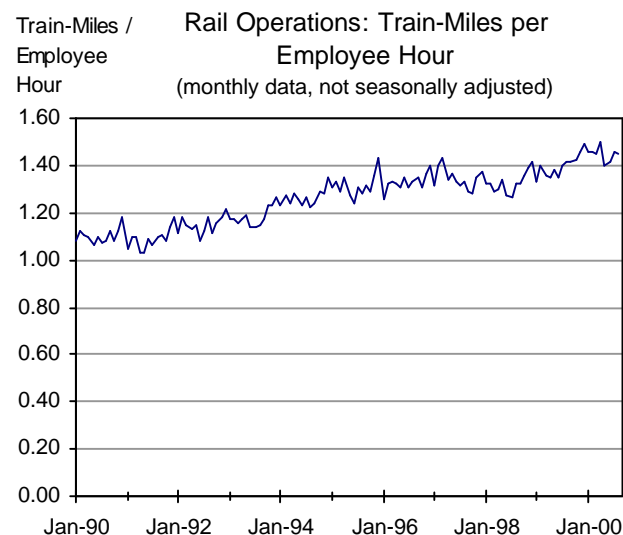


## Productivity growth

Productivity growth is the ultimate source for the increases of a nation's economic wealth and living standards. Transportation has been one of the leading sectors in productivity growth for the U.S. economy since 1955, when statistics on transportation productivity became available.

Productivity Index (1955=100)	1997	1998
Railroad (data are for 1996 and 1997)	826	852
Percent change from previous year	6.17	3.15
Air	617	599
Percent change from previous year	0.49	-2.92
Pipelines	658	677
Percent change from previous year	1.39	2.89
Trucking	307	302
Percent change from previous year	0.99	-1.63
Business as a whole (1998-1999)	222	229
Percent change from previous year	2.58	2.97
Bus	109	94
Percent change from previous year	17.20	-13.76

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, Index of Output per Employee, All Published Industries, 8/12/2000.



### Rail labor productivity

Train-miles per employee hour is one measure for labor productivity in railroad transportation.

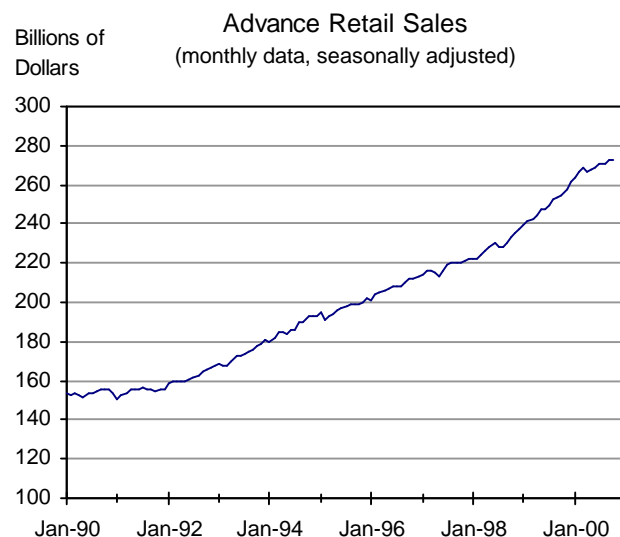
Total train miles includes yard-switching miles.

NOTE: This indicator of rail productivity differs from that shown in the previous page. The data sources are different, and this measure is based on train-miles while that on the previous page is based on ton-miles.

Rail Operations	Aug-99	Aug-00
Train-Miles/Employee hours	1.41	1.45
Percent change from same month previous year	6.50	2.83

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Federal Railroad Administration, Office of Safety Analysis, available at: <http://safetydata.fra.dot.gov/officeofsafety/>.



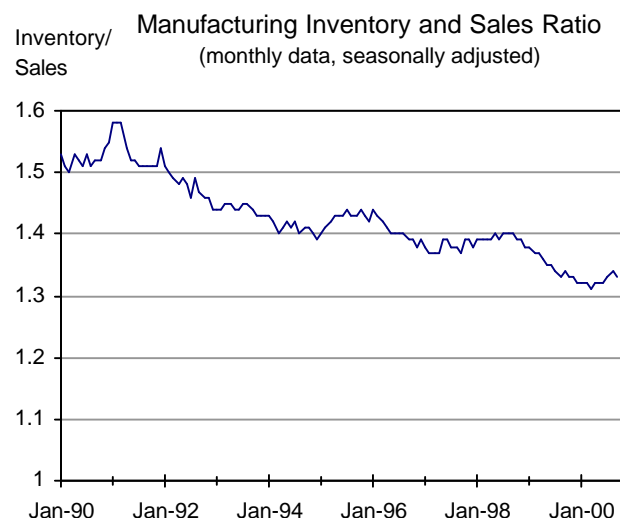
## Retail sales and transportation demand

Advance retail sales are a leading indicator of retailers' sales expectations and may suggest future demand for commercial transportation services. Retail stores may require faster and more reliable delivery of shipments as consumer demand increases and inventories are maintained at lower levels. Sales have been increasing over the past 8 years.

NOTE: Advance retail sales are advance estimates of monthly retail trade produced by the Bureau of the Census. The advance estimates are based on a small subsample of the Census Bureau's full retail sales sample.

Advanced Retail Sales	Sep-00	Oct-00
Advanced retail sales (millions of dollars)	273,010	273,170
Percent change from same month previous year	0.91	0.06

SOURCE: U.S. Department of Commerce, Bureau of the Census, Economic Briefing Room, as of October 13, 2000, available at: <http://www.whitehouse.gov/fsbr/esbr.html>.



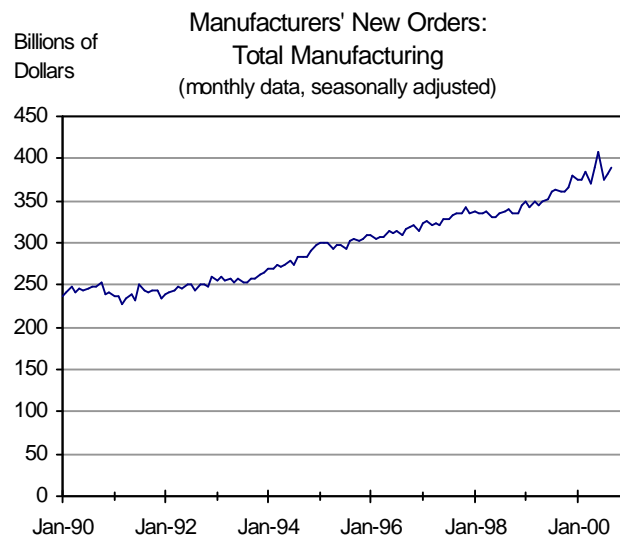
## Level of manufacturing inventory

Manufacturing inventory to sales ratio indicates the level of inventory that manufacturers currently maintain to meet a given sales volume. Over time, manufacturers have reduced inventory in relation to sales. Increased speed and reliability of transportation help manufacturers operate with smaller inventories.

Manufacturing Inventory and Sales	Aug-00	Sep-00
Inventory/sales ratio	1.34	1.33
Percent change from previous month	0.75	-0.75

SOURCE: U.S. Department of Commerce, Bureau of the Census, Economic Briefing Room, as of October 3, 2000, available at: <http://www.whitehouse.gov/fsbr/esbr.html>.





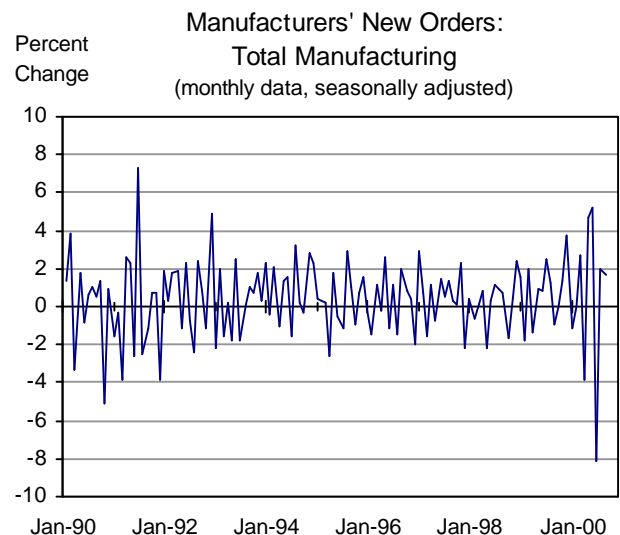
## New orders—all manufacturing

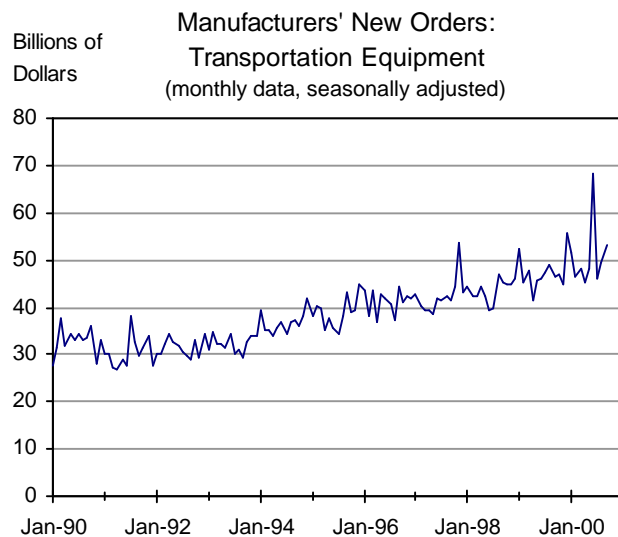
Month to month changes in factory orders may affect demand for transportation services, including both domestic and international transportation of parts and other manufacturing inputs.

NOTE: New orders, as reported in the monthly Manufacturers' Shipments, Inventories, and Orders (M3) survey conducted by the U.S. Census Bureau, are net of order cancellations and include orders received and filled during the month as well as orders received for future delivery. Orders are defined to include those supported by binding legal documents such as signed contracts, letters of award, or letters of intent, although in some industries this definition may not be strictly applicable. See more details at <http://www.census.gov/indicator/www/m3/m3desc.htm>.

Manufacturers' New Orders	Aug-00	Sep-00
Total manufacturing (billions of dollars)	382.37	388.58
Percent change from previous month	1.96	1.62

SOURCE: U.S. Department of Commerce, Bureau of the Census, available at: <http://www.census.gov/indicator/www/m3/prel/index.htm>.



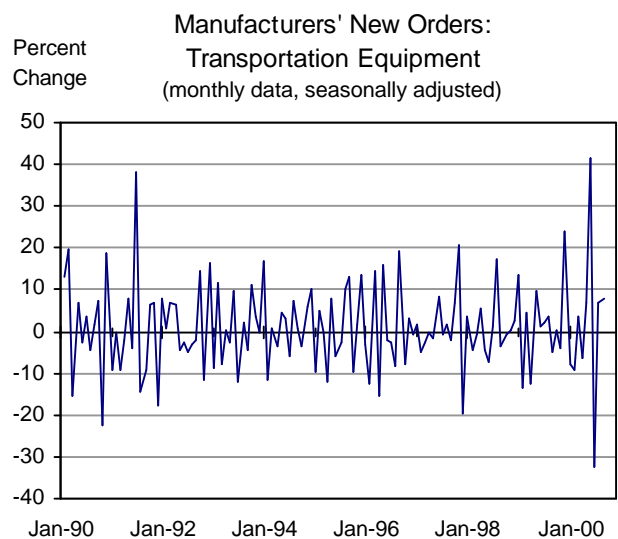


## New orders for transportation equipment

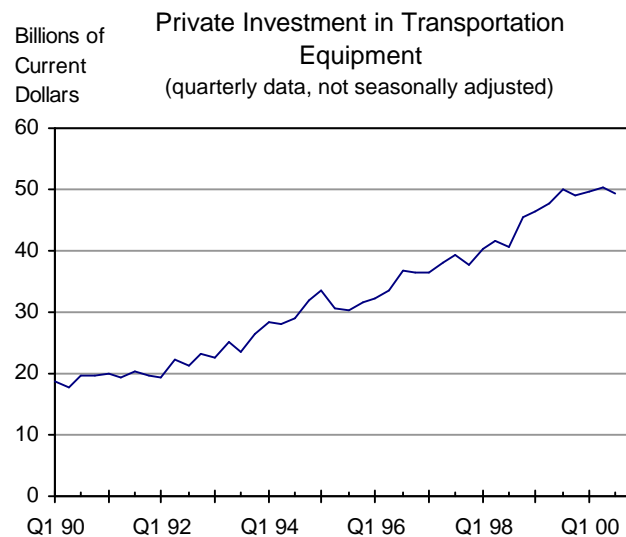
Month-to-month changes in new orders for transportation equipment indicate the level of investment in transportation and may indicate the industry outlook for transportation services. There can be a substantial time lag between ordering and delivery of equipment such as commercial airplanes and ships. New orders refer to orders placed with domestic producers of equipment.

Manufacturers' New Orders	Aug-00	Sep-00
Transportation equipment (billions of dollars)	49.44	53.22
Percent change from previous month	7.11	7.64

SOURCE: U.S. Department of Commerce, Bureau of the Census, available at: <http://www.census.gov/indicator/www/m3/prel/index.htm>.







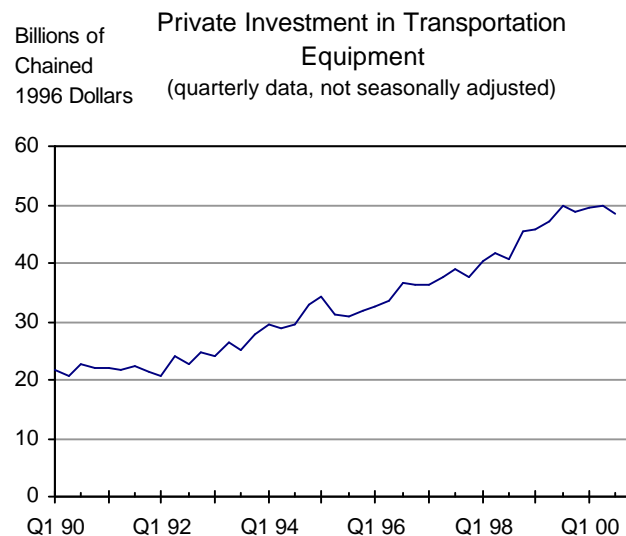
## Business investment in transportation equipment

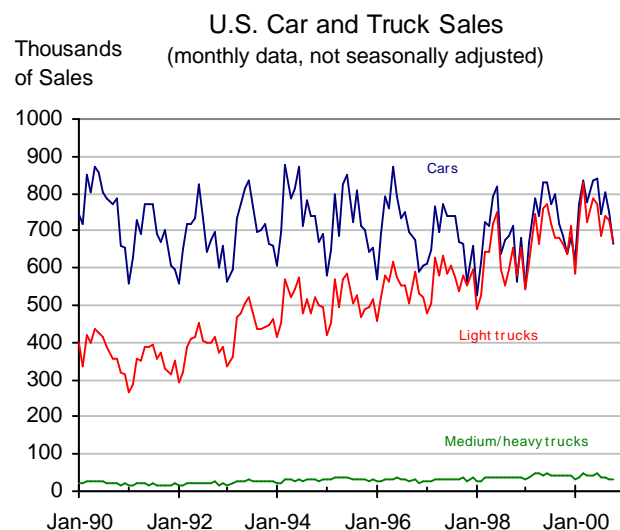
Private investment indicates the level of demand anticipated by industry; therefore, it can be considered a leading indicator for transportation capacity and supply. The data cover both domestically produced and imported equipment.

Private Investment in Transportation	Q3 99	Q3 00
Current dollars	50.1	49.3
Percent change from same quarter, previous year	23.19	-1.55
Chained 1996 dollars	49.8	48.5
Percent change from same quarter, previous year	22.67	-2.56

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics estimates based on U.S. Department of Commerce, Bureau of Economic Analysis, National Industry and Product Accounts data.





### Retail Sales of Motor Vehicles

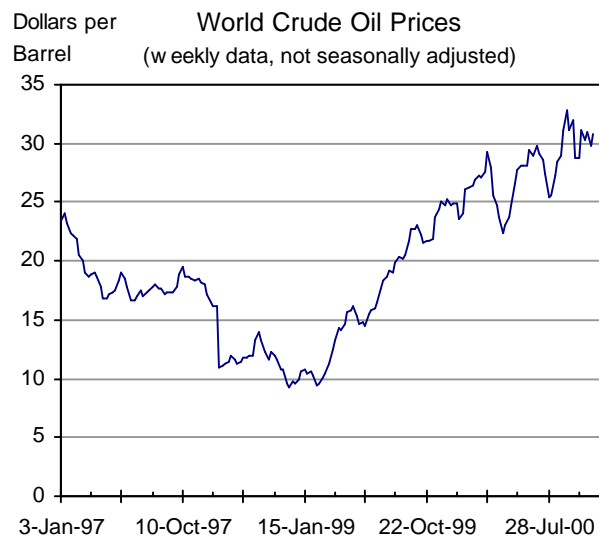
Car and truck sales can be seen as an indicator of future demands to be placed on transportation infrastructure. Trends in sales for particular types of vehicles may also have implications for safety, energy usage, air pollution, and other matters. For example, the sale of light trucks has grown to almost match the level of car sales in recent years.

NOTE: Light trucks include pick up trucks, sport utility vehicles, vans, and mini-vans.

U.S. Car and Truck Sales	Oct-99	Oct-00
Cars	688,523	665,400
Percent change from same month previous year	-3.52	-3.36
Light trucks	663,357	668,678
Percent change from same month previous year	1.31	0.80
Medium/heavy trucks	44,907	33,710
Percent change from same month previous year	15.08	-24.93

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: Lisa Smith, Ward's AutoInfoBank, 3000 Town Center Drive, Southfield, Michigan 48075.

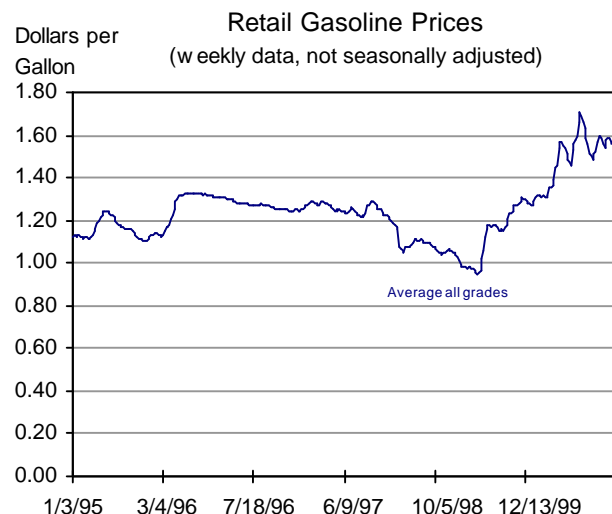


### World crude oil prices

The world price of crude oil is the most important factor influencing domestic motor fuel prices, since oil imports make up more than half of the U.S. oil supply. Motor fuel prices, in turn, directly affect the cost of transportation. Increases in transportation costs caused by higher world crude oil prices are pure additional costs in the sense that U.S. citizens do not generally benefit.

World Crude Oil	3-Nov-00	10-Nov-00
Price (dollars per barrel)	29.86	30.78
Percent change from the previous week	-3.58	3.08

SOURCE: U.S. Department of Energy, Energy Information Administration, Crude Oil Watch, as of October 13, 2000, available at: [http://www.eia.doe.gov/oil\\_gas/petroleum/pet\\_frame.html](http://www.eia.doe.gov/oil_gas/petroleum/pet_frame.html)

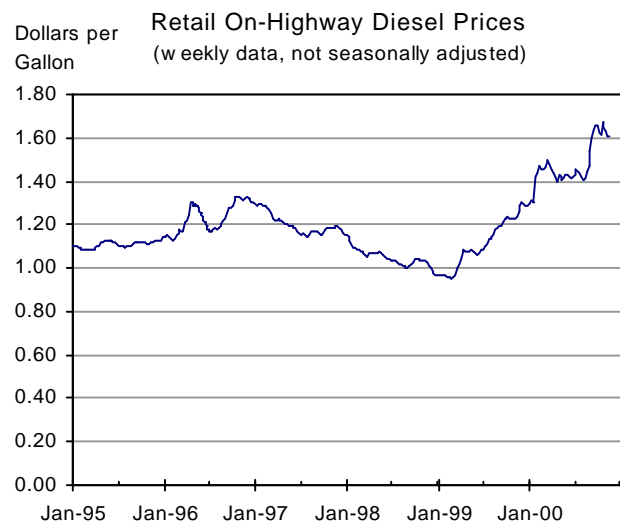


### Motor fuel prices

Motor fuel prices are an important cost component of highway transportation. Changes in motor fuel prices impact the behavior of both producers and consumers, and affect the demand for transportation in terms of level and modal mix.

In the United States, motor gasoline prices follow world crude oil prices more closely than motor diesel prices. Changes in motor fuel prices affect the profit margin of transportation firms, particularly trucking firms.

There are regional differences in motor fuel prices, as the following maps illustrate.



Retail Gas Prices	6-Nov-00	13-Nov-00
Average all grades (dollars per gallon)	1.565	1.562
Percent change from previous week	-1.20	-0.19

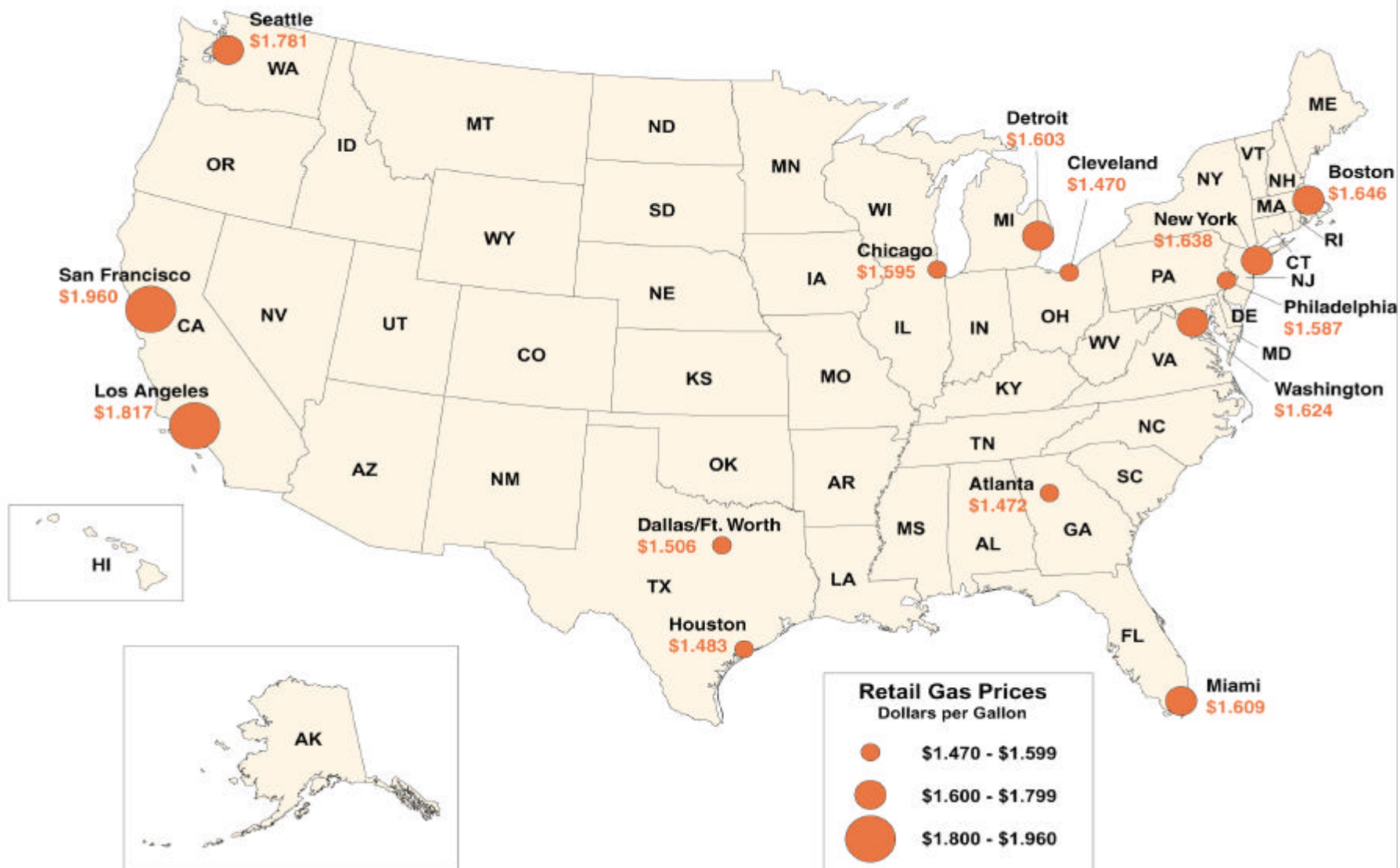
SOURCE: U.S. Department of Energy, Energy Information Administration, Weekly Retail Gasoline Prices, as of October 16, 2000, available at: [http://www.eia.doe.gov/oil\\_gas/petroleum](http://www.eia.doe.gov/oil_gas/petroleum)

Retail On-Highway Diesel Prices	6-Nov-00	13-Nov-00
Retail on-highway diesel prices (dollars per gallon)	1.610	1.603
Percent change from previous week	-1.17	-0.43

SOURCE: U.S. Department of Energy, Energy Information Administration, Weekly On-Highway Diesel Prices, as of October 16, 2000, available at: [http://www.eia.doe.gov/oil\\_gas/petroleum](http://www.eia.doe.gov/oil_gas/petroleum).

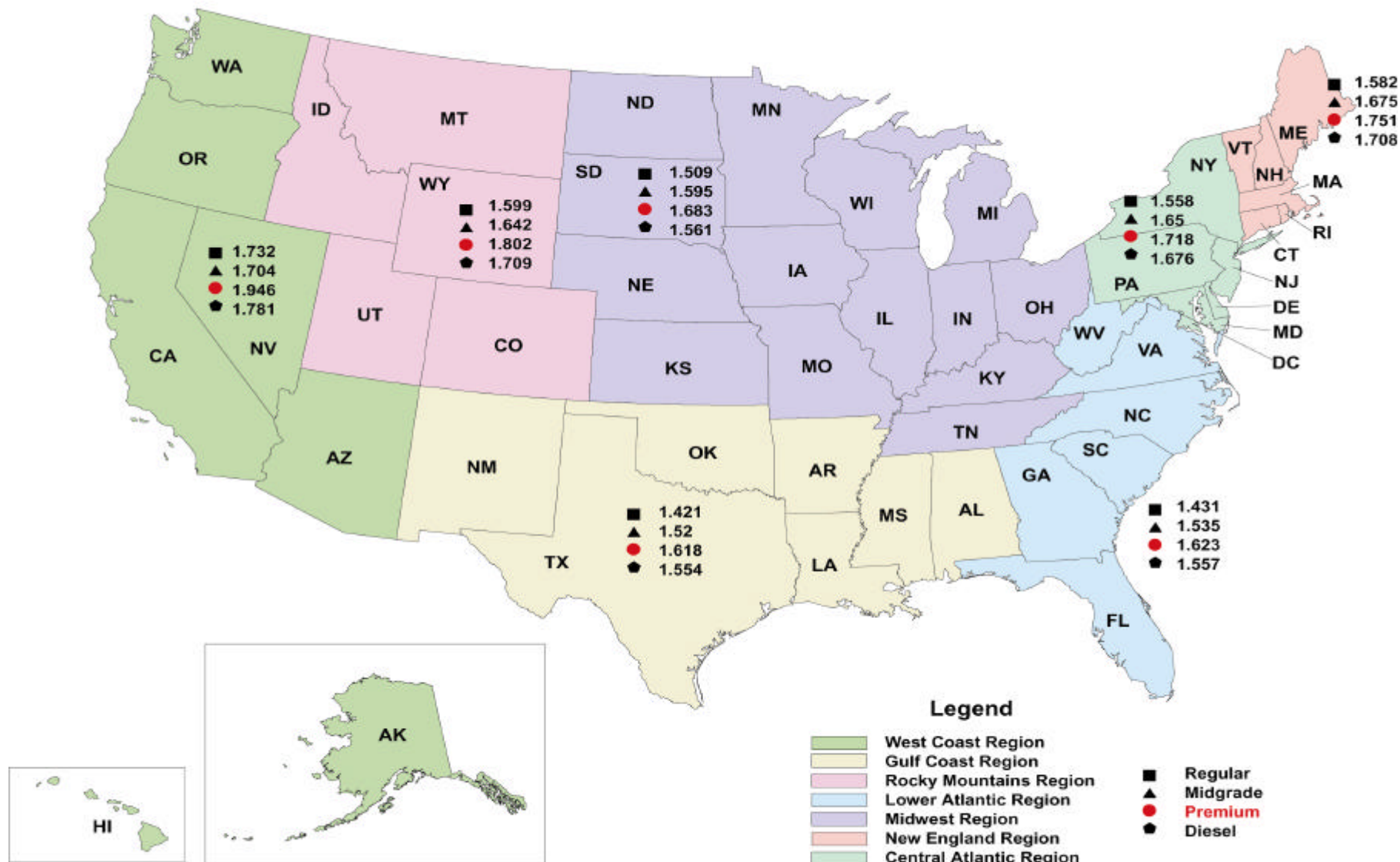


## Retail Gasoline Prices of Selected Metropolitan Areas, October 2000



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, "Price & Living Conditions: Average Price Data." <http://www.bls.gov/sahome.html>.

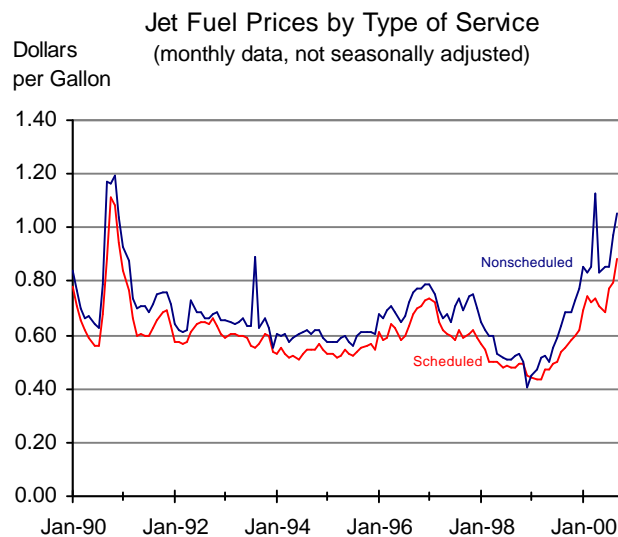
# Regional Retail Motor Fuel Prices as of November 13, 2000



SOURCE: U.S. Department of Energy, Energy Information Administration, "Retail Gasoline Prices" and "On-Highway Diesel Prices."  
Internet site: [http://www.eia.doe.gov/oil\\_gas/petroleum/special/gasoline\\_update/market\\_summary.html](http://www.eia.doe.gov/oil_gas/petroleum/special/gasoline_update/market_summary.html)







### Domestic unit prices for airline jet fuel

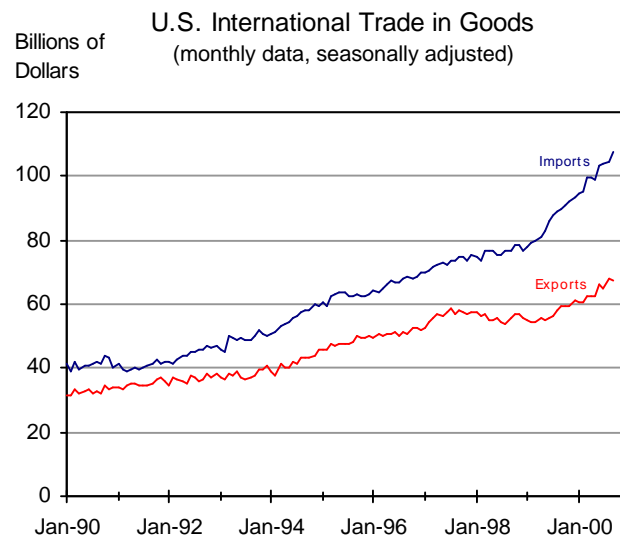
Jet fuel prices reported to the Bureau of Transportation Statistics differ from producer prices. Reports to BTS show the cost per gallon of fuel used by an airline during the month rather than the price charged by a producer on a single day. Fuel costs for scheduled airline services reflect contractual and storage advantages available to large buyers, while fuel costs for nonscheduled airline services reflect economic conditions for smaller buyers.

Current dollars per gallon	Sep-99	Sep-00
For scheduled services	0.551	0.888
Percent change from same month previous year	14.54	61.01
For nonscheduled services	0.682	1.051
Percent change from same month previous year	29.58	54.17

SOURCE: U.S. Department of Transportation, Bureau of Transportation Statistics.

NOTES: The current value is compared to the value from the same period in the previous year to account for seasonality.

Data for August 2000 to September 2000 are preliminary due to late reports by carriers. Previous submissions indicate that reports included in the August data account for 84 percent of total fuel consumption, and reports included in the September data account for 84 percent of total fuel consumption.

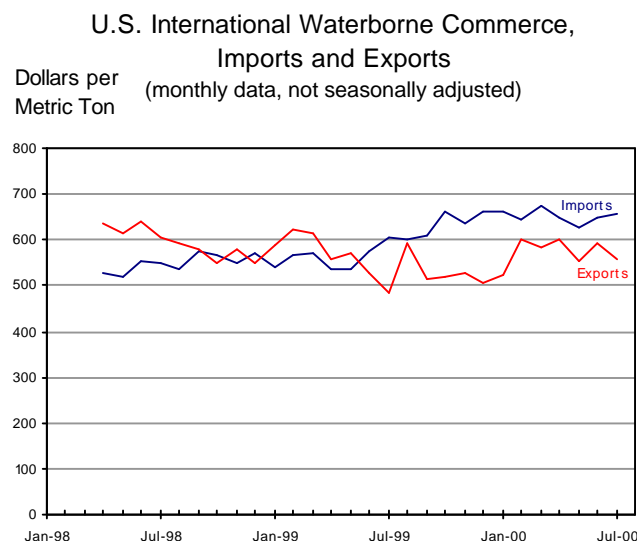


## Value of U.S. imports and exports

International trade represents a growing share of the U.S. economy. Changes in the level of both imports and exports affect the level of demand for transportation services. The value of U.S. imports historically have been higher than the value of U.S. exports, but the gap has widened recently.

U.S. International Trade In Goods	Aug-00	Sep-00
Exports (millions of dollars)	67,973	67,316
Percent change from previous month	4.42	-0.97
Imports (millions of dollars)	104,657	107,524
Percent change from previous month	1.00	2.74

SOURCE: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division data, available at: <http://www.census.gov/foreign-trade/www/statistics.html>.



## Value per metric ton of U.S. waterborne exports and imports

Approximately 40 percent by value (75 percent in terms of tonnage) of cargo carried in U.S. foreign trade is carried on the water. U.S. waterborne exports are typically lower in value and tonnage than U.S. waterborne imports. Growth in containerized imports helps explain growth in value per metric ton of imports. Manufactured products constitute a high portion of container shipments.

NOTE: Data reported prior to the 3rd quarter of 1998 were collected and reported by the U.S. Department of Commerce and may not be completely comparable to data reported by the Maritime Administration.

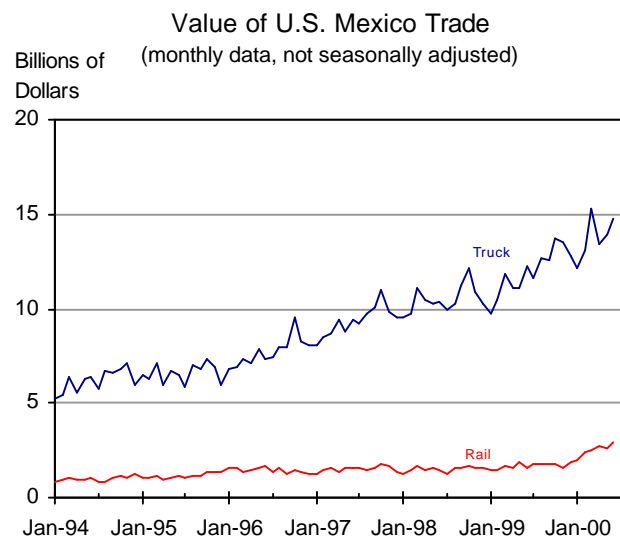
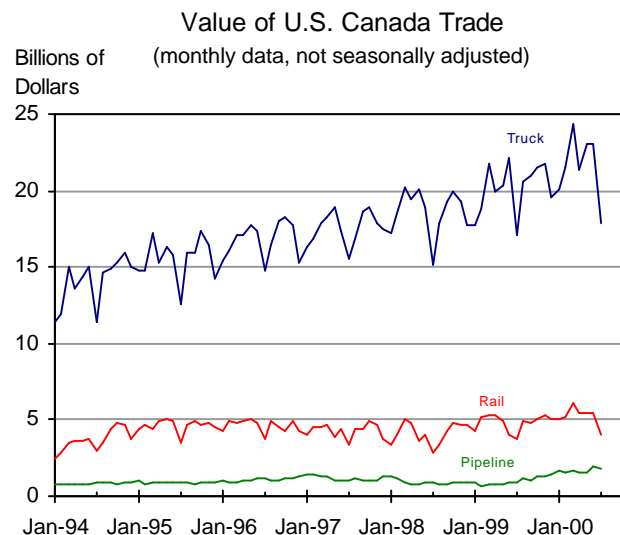
Dollars Per Metric Ton	Jul-99	Jul-00
Imports	606	659
Percent change from same month previous year	10.27	8.73
Exports	485	556
Percent change from same month previous year	-19.86	14.76

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, Maritime Administration, Waterborne Databank, and U.S. Department of Commerce, Bureau of Census, Foreign Trade Division, U.S. Waterborne Exports and General Imports, various issues, available at <http://www.marad.dot.gov/statistics/usfwts/index.html>.







## U.S. surface trade with Canada and Mexico

Surface freight is useful in monitoring the value and modal patterns of trade with Canada and Mexico, our North American Free Trade Agreement (NAFTA) partners. Canada is our largest trading partner, while Mexico now ranks second. Surface modes include not only truck, rail, and pipeline (shown here), but also government mail and other miscellaneous modes.

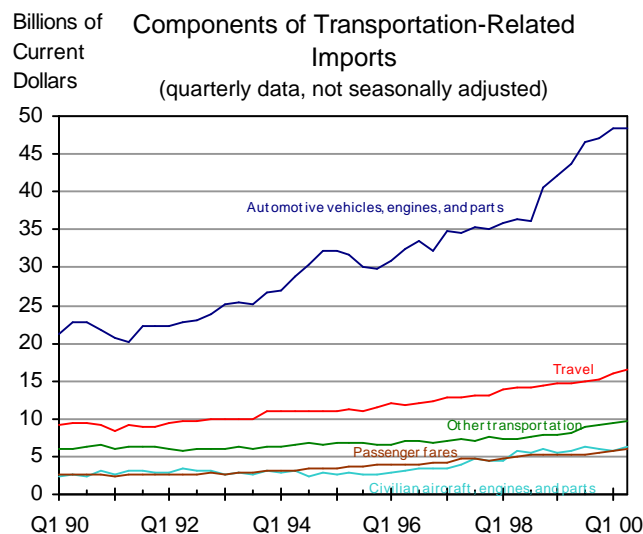
U.S. - Canada Trade	Jul-99	Jul-00
Truck (millions of dollars)	17,058	17,912
Percent change from same month previous year	12.39	5.01
Rail (millions of dollars)	3,712	3,977
Percent change from same month previous year	29.44	7.13
Pipeline (millions of dollars)	965	1,837
Percent change from same month previous year	3.55	90.25

U.S. - Mexico Trade	Jul-99	Jul-00
Truck (millions of dollars)	11,644	13,525
Percent change from same month previous year	17.09	16.15
Rail (millions of dollars)	1,809	2,500
Percent change from same month previous year	41.61	38.21
Pipeline (millions of dollars)	12	39
Percent change from same month previous year	9.92	218.37

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: Data obtained from the U.S. Department of Commerce, Census Bureau by the U.S. Department of Transportation Bureau of Transportation Statistics, Transborder Surface Freight Dataset, available at: <http://www.bts.gov/transborder/prod.html>.





## Value of transportation-related imports

The transportation sector's trade balance, has been negative for many years. The strong growth of imports, together with much slower growth of exports, have increased the transportation-related trade deficit.

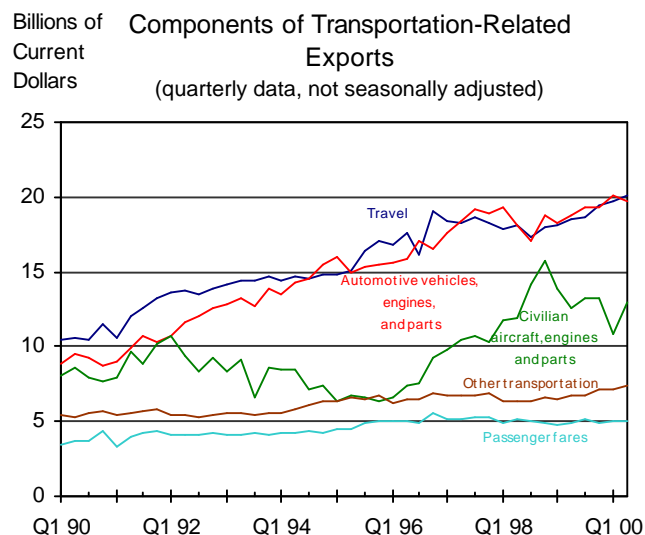
NOTE: "Other transportation" imports include payments for freight transportation services and port services.

Passenger fares include international transportation fares, particularly, air fares and ocean liner fares.

Travel includes intercity and local fares within a country, hotel and restaurant, admission fees, and souvenir expenditures.

Imports	Q1 00	Q2 00
Transportation-related Total (billions of dollars)	85.3	86.7
Percent change from previous quarter	2.3	1.6
Automotive & Parts (billions of dollars)	48.3	48.4
Percent change from previous quarter	2.8	0.2
Travel (billions of dollars)	15.9	16.4
Percent change from previous quarter	3.8	3.6
Other (billions of dollars)	9.5	9.6
Percent change from previous quarter	2.7	1.1
Passenger Fares (billions of dollars)	5.8	6.0
Percent change from previous quarter	4.5	3.4
Civilian Aircraft & Parts (billions of dollars)	5.8	6.2
Percent change from previous quarter	-3.7	7.3

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2000.



## Value of transportation-related exports

Transportation-related exports contribute to U.S. GDP and employment, which help retain the U.S. industrial base.

NOTE: "Other transportation" exports include payments for freight transportation services and port services.

Passenger fares include international transportation fares, particularly, air fares and ocean liner fares.

Travel includes intercity and local fares within a country, hotel and restaurant, admission fees, and souvenir expenditures.

Exports	Q1 00	Q2 00
Transportation-related Total (billions of dollars)	62.9	65.1
Percent change from previous quarter	-2.1	3.5
Automotive & parts (billions of dollars)	20.1	19.8
Percent change from previous quarter	3.6	-1.5
Travel (billions of dollars)	19.8	20.1
Percent change from previous quarter	1.4	1.8
Civilian Aircraft & Parts (billions of dollars)	10.9	12.9
Percent change from previous quarter	-17.7	18.3
Other (billions of dollars)	7.2	7.4
Percent change from previous quarter	1.4	2.1
Passenger Fares (billions of dollars)	5.0	5.0
Percent change from previous quarter	1.0	0.0

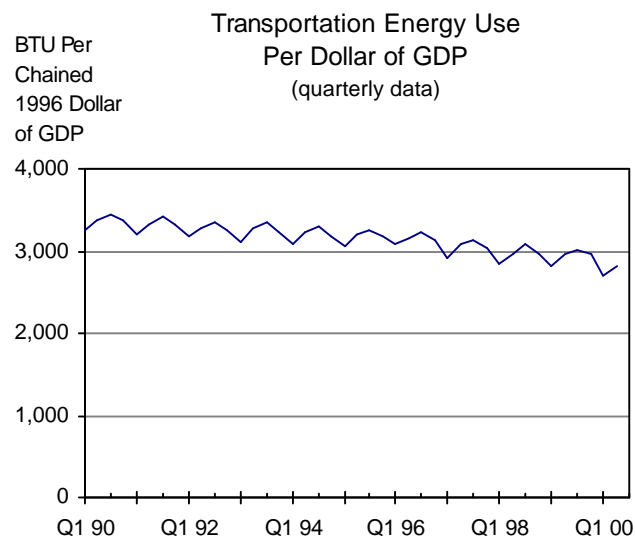
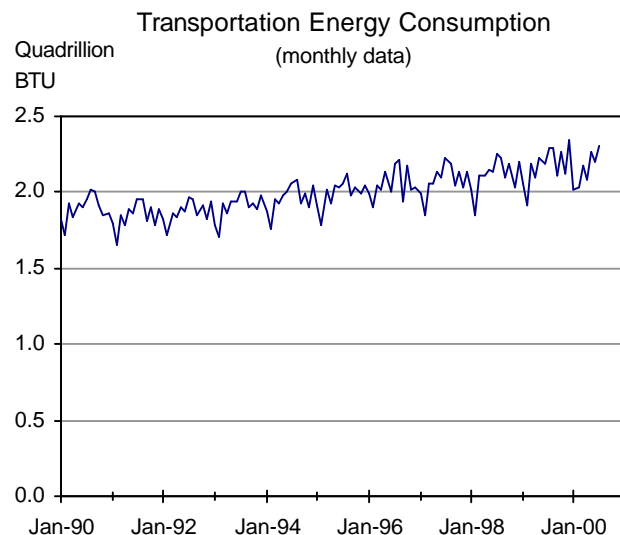
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2000, NIPA Table 4.3.

# Human and Natural Environment

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## Transportation energy use

Transportation accounts for about 28 percent of U.S. energy consumption. Petroleum accounts for nearly all (about 97 percent) of the transportation sector's energy use. Petroleum is a major component of transportation costs, and its usage affects the environment. Because more than half of the U.S. petroleum supply is imported, there are also national security concerns for assuring petroleum supplies.

Transportation Energy Consumption	Jul-99	Jul-00
Quadrillion BTU	2.286	2.308
Percent change from same month previous year	1.33	0.96

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, July 2000, available at: <http://www.eia.doe.gov>.

## Transportation energy use per dollar of GDP

This indicator shows the level of energy use for transportation with respect to production of GDP and the levels of personal consumption in the United States over time. Transportation energy use reflects the seasonality of personal travel.

BTU - British Thermal Unit

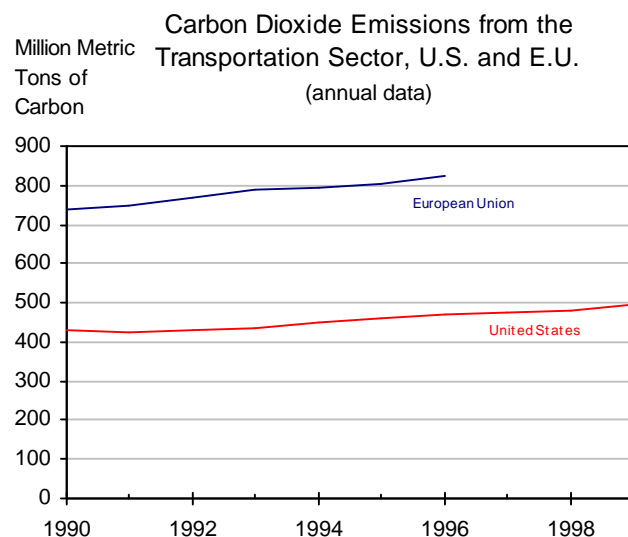
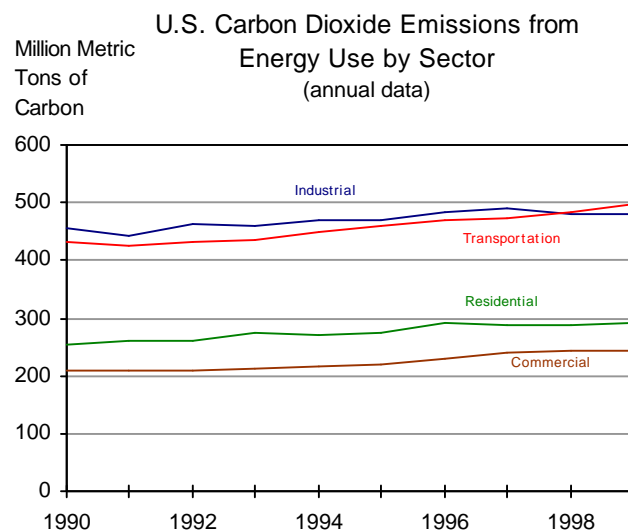
The average heat content of motor gasoline is 129,024 BTU per gallon. One quadrillion BTU is equivalent to 7.75 billion gallons of motor gasoline.

Transportation Energy Use Per \$ of GDP	Q2 99	Q2 00
Thousand BTU per Dollar of GDP	2,963	2,808
Percent change from same quarter previous year	-0.31	-5.24

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, July 2000, available at: <http://www.eia.doe.gov>.





## Transportation and other sectors' carbon dioxide emissions

Carbon dioxide is a major greenhouse gas emitted from the burning of fossil fuels.

The transportation sector surpassed the industrial sector's carbon dioxide emissions for the first time in 1998. Historically, the industrial sector was the largest emitter of carbon dioxide.

Transportation carbon dioxide emissions in the European Union and the United States have been rising since 1990.

MMTC = million metric tons of carbon  
Tons of carbon can be converted to tons of carbon dioxide by multiplying by 3.667.

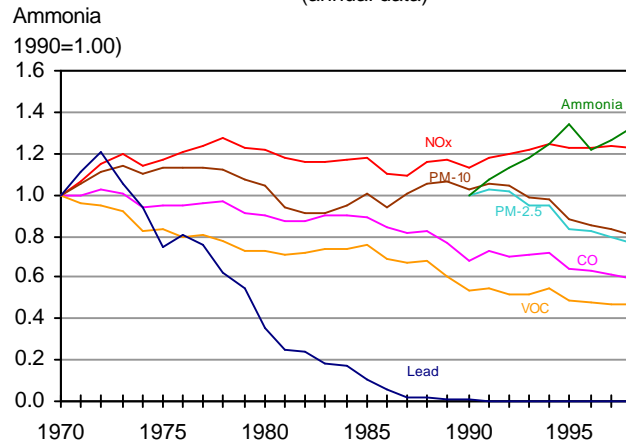
NOTE: The European Union consists of 15 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

U.S. Carbon Dioxide Emissions	1998	1999
Transportation (MMTC)	482	496
Percent change from previous year	1.69	2.91
Industrial (MMTC)	480	481
Percent change from previous year	-2.04	0.36
Residential (MMTC)	289	290
Percent change from previous year	0.00	0.35
Commercial (MMTC)	244	244
Percent change from previous year	1.24	0.00

SOURCE: U.S. Department of Energy, Energy Information Administration, *Emissions of Greenhouse Gases in the United States, 1999*. Available at: [http://www.eia.doe.gov/env/env\\_pub.html](http://www.eia.doe.gov/env/env_pub.html).



1970=1.00 Index of Key Air Pollutant Emissions from Transportation (annual data)

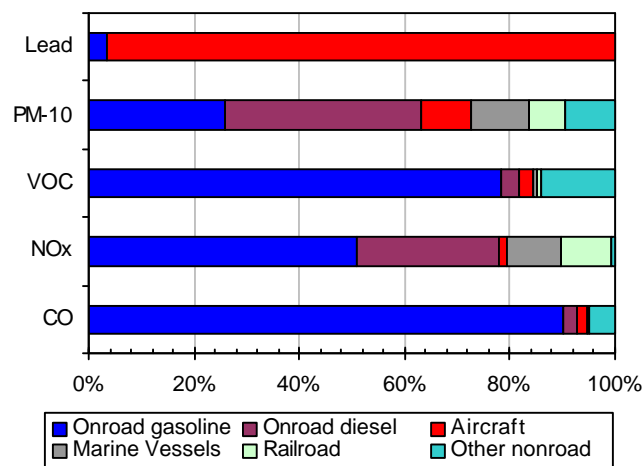


## Air pollutants from transportation

Despite rapid growth in vehicle use over the past two decades, emissions of carbon monoxide (CO) and volatile organic compounds (VOC) have declined, and lead emissions have been almost eliminated, leading to improved air quality. There have been reductions in particulate emissions (PM) at the 10 micron classification. Only emissions of nitrogen oxides (NO<sub>x</sub>) remain above 1970 levels. (Ammonia and PM-2.5 were added to the list of regulated pollutants recently.)

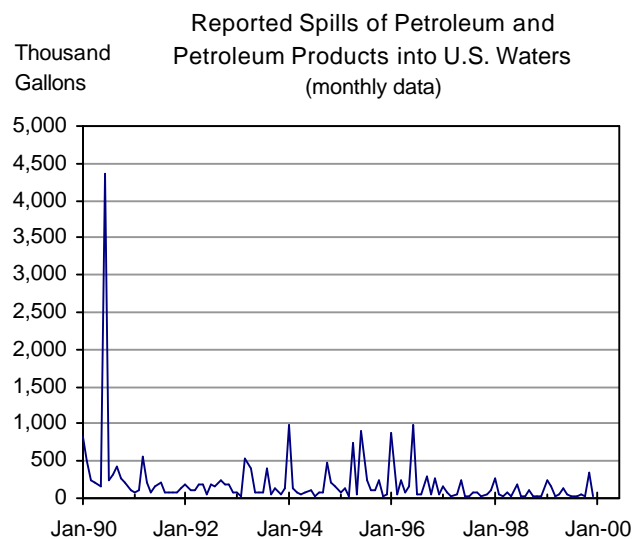
With the exception of lead, onroad vehicles contribute the largest share of air pollutants among all modes.

Modal Shares of Key Air Pollutants from Transportation, 1998



Thousands of Short Tons of Transportation Air Emissions	1997	1998
Carbon monoxide (CO)	55,437	54,170
Oxides of nitrogen (NOx)	10,077	9,975
Volatile organic compounds (VOC)	6,513	6,510
Particulate matter < 10 microns (PM-10)	420	405
Particulate matter < 2.5 microns (PM-2.5)	336	323
Ammonia	250	260
Lead	0.5	0.5

SOURCE: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards (OAQPS). 1998a. *National Air Pollutant Emission Trends, Update: 1970-1997* (Research Triangle Park, NC: December 1998)



NOTE: The spike in 1990 was caused by one tanker spill in the Gulf of Mexico.

### Crude oil and petroleum products spills in U.S. waters

Crude petroleum and petroleum products spills are costly to the environment and to society. Major oil spills are infrequent but can have large adverse impacts. Between 1995 and 1999, transportation was responsible for roughly 72 percent of the total gallons reported spilled. The remainder is from fixed facilities on and off shore; however, many of these facilities (such as marinas and ports) are transportation-related.

Data are only for reported spills. Unreported spills (such as from improper disposal of used motor oil into storm drains) also contribute to oil pollution, but the total volume of these spills is not known.

NOTE: Annual data from 1995 to 1999 were used to calculate the average percentage of transportation-related spills.

Oil Spills	Dec-98	Dec-99
Gallons spilled	15,461	26,796
Percent change from previous year	-83.44	73.31

SOURCE: U.S. Coast Guard, Annual Data and Graphics for Oil Spills (1969-1999), available at: <http://www.uscg.mil/hq/g-m/nmc/response/stats/ac.htm>.

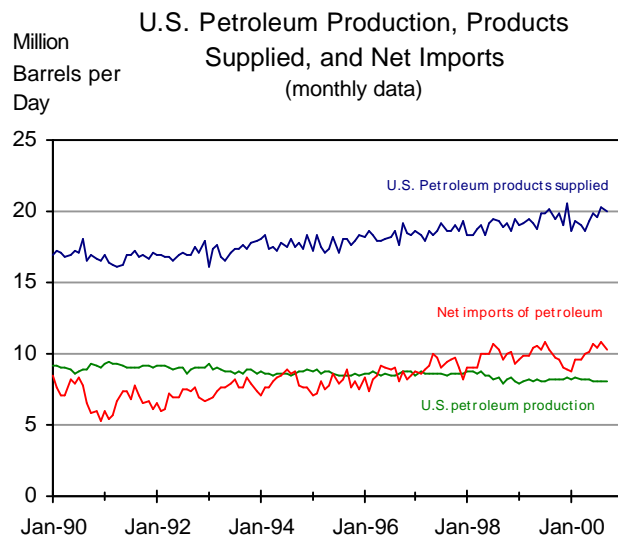


# National Security

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### U.S. dependence on oil imports

The United States now imports more petroleum than it produces domestically. U.S. dependence on foreign sources for a product of such critical importance to the U.S. economy and society has prompted national security concerns.

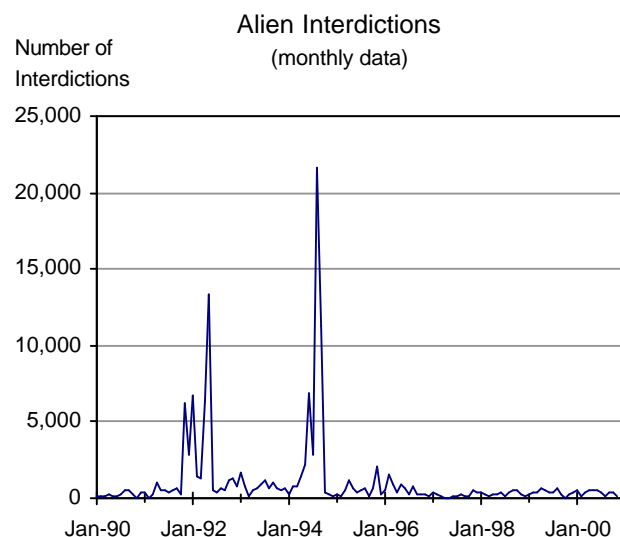
NOTE: Petroleum products supplied is a proxy for consumption.

U.S. Petroleum Products Supplied	Aug-00	Sep-00
Total (thousand barrels per day)	20,224	20,008
Percent change from previous month	3.27	-1.07

Net Petroleum Imports	Aug-00	Sep-00
Total (thousand barrels per day)	10,776	10,312
Percent change from previous month	3.18	-4.31

U.S. Petroleum Production	Aug-00	Sep-00
Total (thousand barrels per day)	8,117	8,094
Percent change from previous month	0.00	-0.28

SOURCE: U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*. Available at: <http://www.eia.doe.gov/mer>.



### Interdictions of illegal aliens

In recent years, most interdictions have involved people from Haiti, the People's Republic of China (PRC), the Dominican Republic, and Cuba. Recently, many interdictions have occurred in the Guam region. Guam is a gateway to the continental U.S. from the PRC.

NOTE: In May 1992, there were 13,103 Haitian interdictions. In August 1994, there were 21,300 Cuban interdictions.

Interdiction: The interception and stopping of illegal aliens attempting to enter the United States (in this case by water or air).

Alien Interdictions	Nov-99	Nov-00
Total	268	96
Percent change from previous year	-13.83	-64.18

NOTE: The current value is compared to the value from the same period in the previous year to account for seasonality.

SOURCE: U.S. Department of Transportation, U.S. Coast Guard, Office of Law Enforcement, available at: <http://www.uscg.mil/hq/g-o/g-opl/mle/amiostats1.htm>.